TOSHIBA

FILE NO. 020-200511

SERVICE MANUAL

LCD Color Television

32HL95

© TOSHIBA CORPORATION 2005

DOCUMENT CREATED IN JAPAN, July, 2005

TABLE OF CONTENTS

SERVICE SAFETY PRECAUTIONS 3
HANDLING THE LCD MODULE 5
SERVICE MODE 7
LAYOUT OF MAJOR BOARDS 12
MECHANICAL DISASSEMBLY 13
EXPLODED VIEW 15
PACKING DISASSEMBLY 17
CHASSIS AND CABINET REPLACEMENT PARTS LIST 18
PC BOARDS TOP & BOTTOM VIEW 24
CIRCUIT BLOCK DIAGRAM 47

APPENDIX:

SCHEMATIC DIAGRAM

⚠ SERVICE SAFETY PRECAUTIONS

- The caution items shown here describe major safety issues and should always be observed.
- The meanings of the various indications are as follows.

⚠ WARNING	Indicates a hypothetical situation in which service personnel and nearby third parties, or even end users due to a product defect after the service operation is completed, could possibly be in danger of injury or even death in the event of operational error.
⚠ CAUTION	Indicates a hypothetical situation in which service personnel and nearby third parties, or even end users after the service operation is completed, could possibly be in danger of injury, or where there could be physical damage in the event of operational error.

* Physical damage means major damage to a home, furnishings and other possessions.

Examples of marks

 SHOCK HAZARD	The △ indicates caution (including danger and warning). The actual meaning of this caution is indicated inside the △ or nearby illustrations or text. The example shown to the left indicates the danger of "electrical shock".
 PROHIBIT DISASSEM-BLING	The ⦸ indicates a forbidden action. The actual meaning of this caution is indicated inside the ⦸ or nearby illustrations or text. The example shown to the left indicates that disassembly is forbidden.
 UNPULUG	The ● indicates a forced action (an action that must be performed). The actual meaning of this forced action is indicated by ● or nearby illustrations or text. The example shown to the left indicates that the power plug must be disconnected.

	⚠ **WARNING**
KEEP CHILDREN AWAY	• Always advise users to keep children away. There is danger of injury to children from tools, disassembled products, etc.
UNPULUG	• Always disconnect the power plug before starting work whenever power is not required. Failure to disconnect the power plug before starting work can result in electrical shock.
SHOCK HAZARD	• Depending on the model, use an insulation transformer or wear gloves when servicing with the power on, and disconnect the power plug to avoid electrical shock when replacing parts. In some cases, alternating current is also impressed in the chassis, so electrical shock is possible if the chassis is contacted with the power on.
USE SPECIFIED PARTS	• Always use the replacement parts specified for the particular model when making repairs. The parts used in products have the necessary safety characteristics such as inflammability, voltage resistance, etc.; therefore, use only replacement parts that have these same characteristics. Use only the specified parts when the ⚠ mark is included in a circuit diagram or parts list.
CAUTION FOR WIRING	• Parts mounting and routing of the wiring should be the same as that used originally. For safety purposes, insulating materials such as tubing or tape is sometimes used and printed circuit boards are sometimes mounted floating. Also make sure that wiring is routed and clamped to avoid parts that generate heat and which use high voltage. Always follow the original scheme.
CAUTION FOR ASSEMBLING / WIRING	• After a repair has been completed, reassemble all disassembled parts, and route and reconnect the wiring, in accordance with the original scheme. Do not allow internal wiring to be pinched by cabinets, panels, etc. Any error in reassembly or wiring can result in electrical leakage, flame, etc., and may be hazardous.
CHECK INSULATION RESISTANCE	• After completing the work, disconnect the power plug from the outlet, remove the antenna, turn on the power switch. Then, use a 500V insulation resistance meter to check the insulation resistance of the antenna terminal, other metallic parts and between the prongs of the power plug to make sure that the insulation resistance is 1M Ω or more. The set will require inspection and repair if the insulation resistance is below this value.
PROHIBIT REMODELING	• Never remodel the product in any way. Remodeling can result in improper operation, malfunction, or electrical leakage and flame, which may be hazardous

HANDLING THE LCD MODULE

Safety Precautions

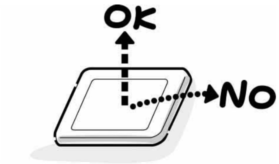
In the event that the screen is damaged or the liquid crystal (fluid) leaks, do not breathe in or drink this fluid. Also, never touch this fluid.

Such actions could cause toxicity or skin irritation. If this fluid should enter the mouth, rinse the mouth thoroughly with water. If the fluid should contact the skin or clothing, wipe off with alcohol, etc., and rinse thoroughly with water. If the fluid should enter the eyes, immediately rinse the eyes thoroughly with running water.

Precautions for Handling the LCD Module

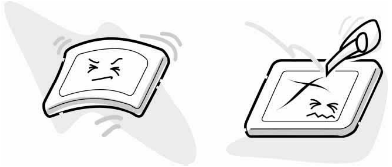
The LCD module can easily be damaged during disassembly or reassembly; therefore, always observe the following precautions when handling the module.

1. When attaching the LCD module to the LCD cover, position it appropriately and fasten at the position where the display can be viewed most conveniently.

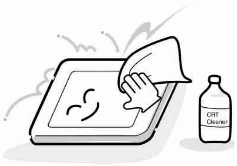


2. Carefully align the holes at all four corners of the LCD module with the corresponding holes in the LCD cover and fasten with screws. Do not strongly push on the module because any impact can adversely affect the performance. Also use caution when handling the polarized screen because it can easily be damaged.

CAUTION	The metal edges of the LCD module are sharp, so use caution to avoid injury.



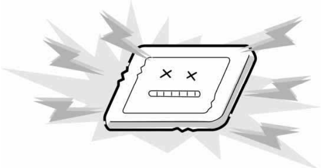
3. If the panel surface becomes soiled, wipe with cotton or a soft cloth. If this does not remove the soiling, breathe on the surface and then wipe again.
   If the panel surface is extremely solied, use a CRT cleaner as a cleaner. Wipe off the panel surface by drop the cleaner on the cloth. Do not drop the cleaner on the panel. Pay attention not to scratch the panel surface.



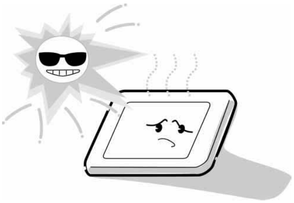
4. Leaving water or other fluids on the panel screen for an extended period of time can result in discoloration or stripes. Immediately remove any type of fluid from the screen.

5. Glass is used in the panel, so do not drop or strike with hard objects. Such actions can damage the panel.

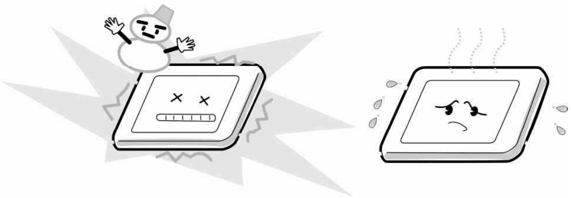
6. CMOS-LSI circuitry is used in the LCD module, so avoid damage due to static electricity. When handling the module, use a wrist ground or anchor ground.



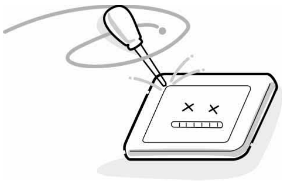
7. Do not expose the LCD module to direct sunlight or strong ultraviolet rays for an extended period of time.



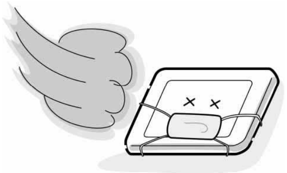
8. Do not store the LCD module below the temperature conditions described in the specifications. Failure to do so could result in freezing of the liquid crystal due to cold air or loss of resilience or other damage.



9. Do not disassemble the LCD module. Such actions could result in improper operation.



10. When transporting the LCD module, do not use packing containing epoxy resin (amine) or silicon resin (alcohol or oxim). The gas generated by these materials can cause loss of polarity.



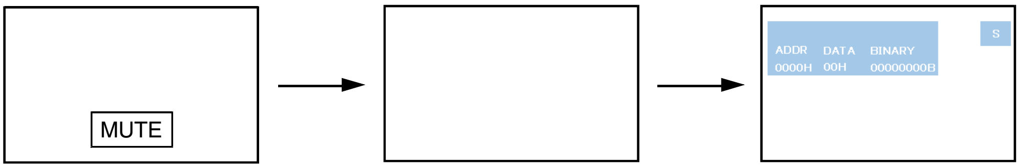
SERVICE MODE

1. ENTERING SERVICE MODE

1) Press MUTE button twice on Remote Control.

2) Press MUTE button again and keep pressing.

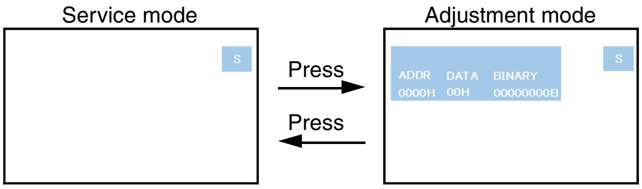
3) While pressing the MUTE button, press MENU button on TV set.



(Service mode display)

2. DISPLAYING THE ADJUSTMENT MENU

1) Press MENU button on Remote Control.



3. KEY FUNCTION IN THE SERVICE MODE

The following key entry during display of adjustment menu provides special functions.

Test signal selection : TV/VIDEO button (on Remote)
Selection of the adjustment items : Channel ▲ / ▼(on TV or Remote)
Change of the data value : Volume ◀ / ▶ (on TV) or ▲ / ▼ (on Remote)
Adjustment menu mode ON/OFF : MENU button (on Remote)
Initialization of the memory : CALL + Channel button on TV (▲)
Reset the count of operating protect circuit to “00” : CALL + Channel button on TV (▼)
“RCUT” selection : 1 button
“GCUT” selection : 2 button
“BCUT” selection : 3 button
“CNTX” selection : 4 button
“COLC” selection : 5 button ––––– Color thickness correction
“UVTT” selection : 6 button
Automatic A/D Adjustment(PC, Component) : 7 button
Self diagnostic display ON/OFF : 9 button

note: Displayed differently as shown below, depending on the setting of the receiving color system.
COLP (PAL)
COLC (NTSC)
COLS (SECAM)

CAUTION : Never try to perform initialization unless you have changed the memory IC.

4. SELECTING THE ADJUSTING ITEMS

1) Every pressing of CHANNEL ▲ button in the service mode changes the adjustment items in the order of table-2. (▼ button for reverse order)

5. ADJUSTING THE DATA

1) Pressing of VOLUME ◀ / ▶ , ▲ / ▼ button will change the value of data in the range from 00H to FFH. The variable range depends on the adjusting item.

6. EXIT FROM SERVICE MODE

1) Pressing POWER button to turn off the TV once.

■ INITIALIZATION OF MEMORY DATA

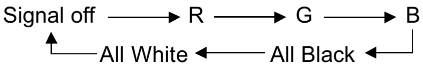
After replacing EEPROM IC, the following initialization is required.

1. Enter the service mode, then select any register item.
2. Press and hold the CALL button on the Remote, then press the CHANNEL ▲ button on the TV. The initialization of EEPROM IC has been completed.
3. Check the picture carefully. If necessary, adjust any adjustment item above.
   Perform “Auto tune” on the owner’s manual.

CAUTION: Never attempt to initialize the data unless EEPROM IC has been replaced.

7. TEST SIGNAL SELECTION

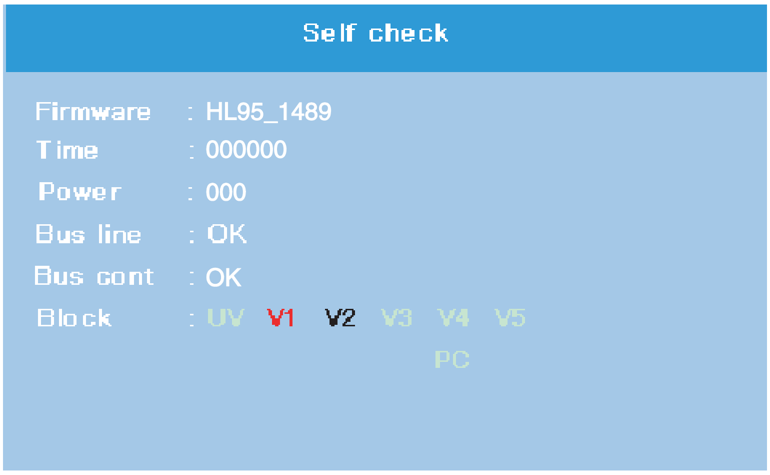
1) Every pressing of TV/VIDEO button on the Remote Control changes the built-in test patterns on screen as described below in SERVICE MODE.



Signals	Picture
• Red raster • Green raster • Blue raster • All Black • All White	

8. SELF DIAGNOSTIC FUNCTION

1) Press “9” button on Remote Control during display of adjustment menu in the service mode.
   The diagnosis will begin to check if interface among IC’s is executed properly.
2) During diagnosis, the following displays are shown.



Self check

① Firmware : HL95_1489
② Time : 000000
③ Power : 000
④ Bus line : OK
⑤ Bus cont : OK
⑥ Block : UV V1 V2 V3 V4 V5
PC

① Firmware :
Version information of microprocessor
In case of file name : HL95 and Version : 1489 indicates[HL95_1489].

② Time : Total hour of turn the TV on. (Unit : H)

③ Power : Operation number of protecting circuit ----"000" is normal.
When indication is other than "000", overcurrent apt to flow, and circuit parts may possibly be damaged.

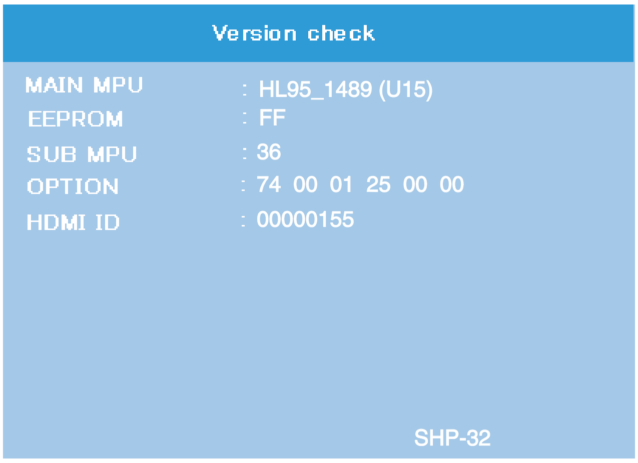
④ Bus line : --"OK" is normal
"SCL-GND"(Red indication) : SCL-GND short circuit
"SDA-GND"(Red indication) : SDA-GND short circuit
"SCL-SDA"(Red indication) : SCL-SDA short circuit

⑤ Bus cont : --- "OK" is normal.
NG is abnormal(Red indication).
When type name of semiconductor indicates.

⑥ Block
UV : TV reception mode
V1 : VIDEO 1 input mode
V2 : VIDEO 2 input mode
V3 : ColorStream HD 1
V4 : ColorStream HD 2
V5 : HDMI
PC : Personal Computer (PC)

9. VERSION CHECK MODE

1) Press “9” button twice on Remote Control during display of adjustment menu in the service mode. The version of main MPU will begin to check.
2) During Version Check, the following displays are shown.



Version check

① MAIN MPU : HL95_1489 (U15)
② EEPROM : FF
③ SUB MPU : 36
④ OPTION : 74 00 01 25 00 00
⑤ HDMI ID : 00000155

SHP-32
⑥

① MAIN MPU :
Version information of microprocessor
In case of file name : HL95, Version 1489 for Code Program Version and (U15) for OSD Version indicates [HL95_1489(U15)]

② EEPROM :
Version information of EEPROM : Display 1 byte data.

③ SUB MPU :
Version information of SUB MPU : Display 1 byte data.

④ OPTION :
Option information : Display six numbers of 1 byte data.

⑤ HDMI ID :
HDMI ID information : Display 4 byte data.

⑥ LCD Panel Vender information display
The following Panel Vender and screen size are displayed.

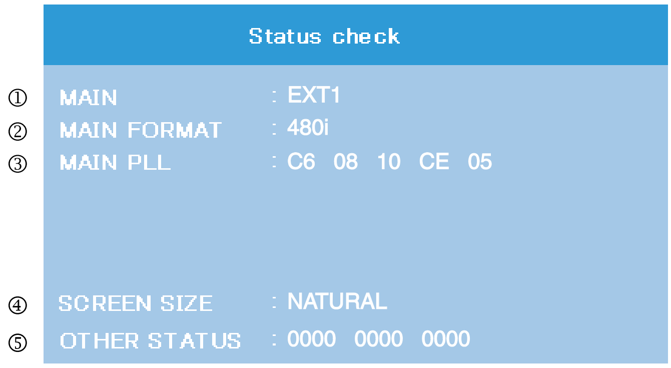
Panel Vender	Screen Size(Inch)
CMO	-27
SHP	-32

Example : SHP-32 indicates that vender is SHP and Screen Size is 32 inch.

10. STATUS CHECK MODE

1) Press “9” button thrice on Remote Control during display of adjustment menu in the service mode. The status of this model will begin to check.

2) During Status Check, the following displays are shown.



Status check

① MAIN : EXT1
② MAIN FORMAT : 480i
③ MAIN PLL : C6 08 10 CE 05

④ SCREEN SIZE : NATURAL
⑤ OTHER STATUS : 0000 0000 0000

① MAIN :
Main source information :
Display RF position number (0 - 99) on the main screen, or Input Source (EXT1/2/3/HDMI etc.)

② MAIN FORMAT :
Display Video and PC format information

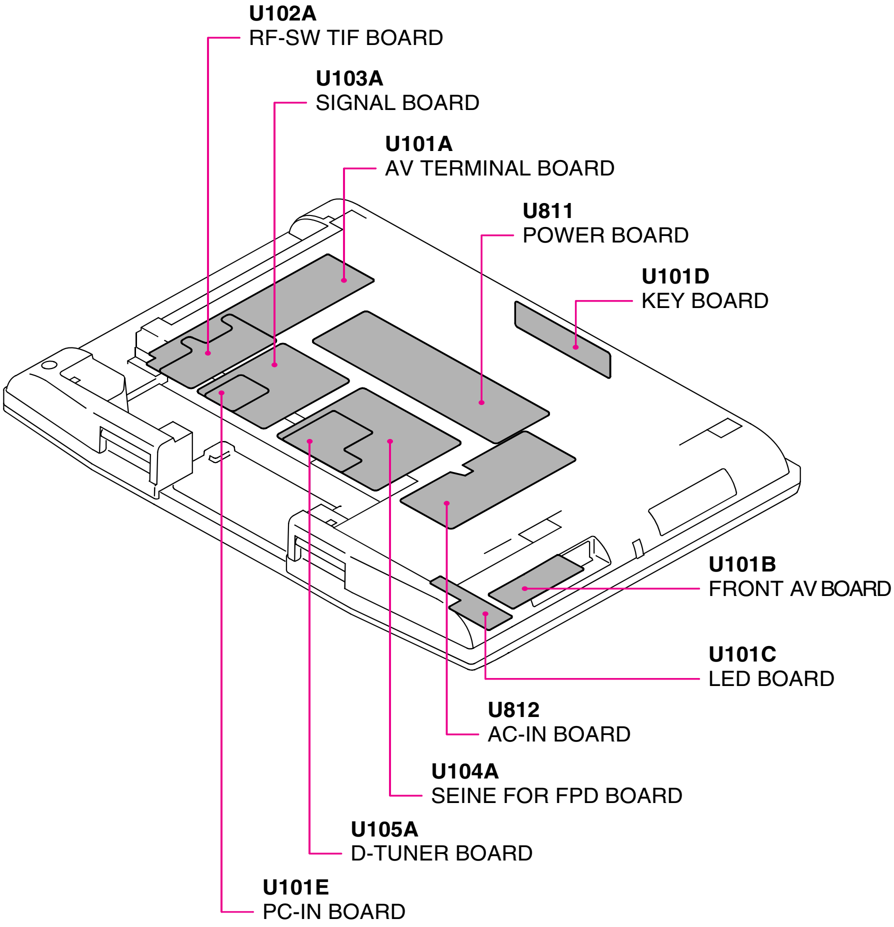
③ MAIN PLL :
Main PLL information : Display 1 byte data at five.

④ SCREEN SIZE :
Display the screen size as follows.

Theater Wide 1
Theater Wide 2
Theater Wide 3
FULL
NATURAL

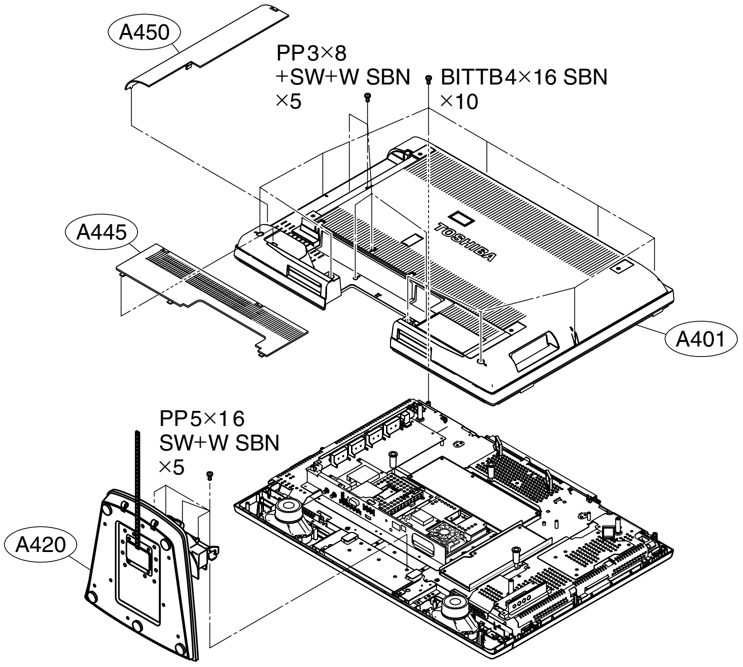
⑤ OTHER STATUS :
Other status information : Display three numbers of 2 byte data.

LAYOUT OF MAJOR BOARDS


U102A
RF-SW TIF BOARD
U103A
SIGNAL BOARD
U101A
AV TERMINAL BOARD
U811
POWER BOARD
U101D
KEY BOARD
U101B
FRONT AV BOARD
U101C
LED BOARD
U812
AC-IN BOARD
U104A
SEINE FOR FPD BOARD
U105A
D-TUNER BOARD
U101E
PC-IN BOARD

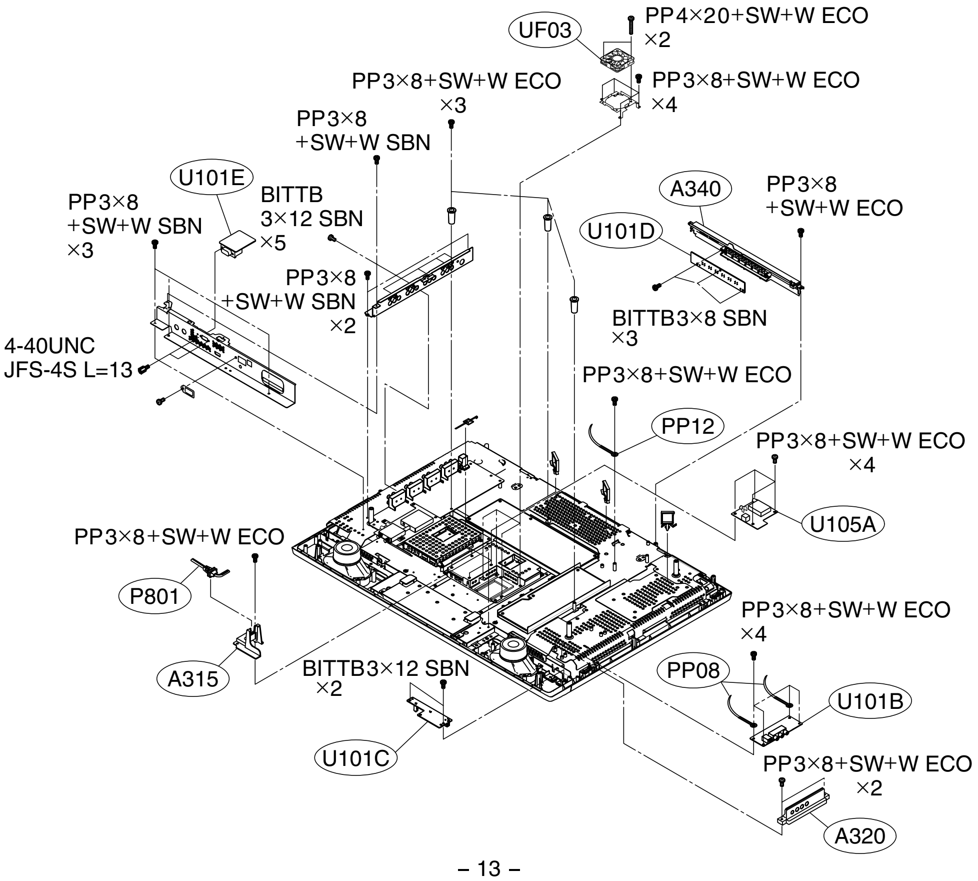
MECHANICAL DISASSEMBLY

1. Remove the stand (foot) and back cover.



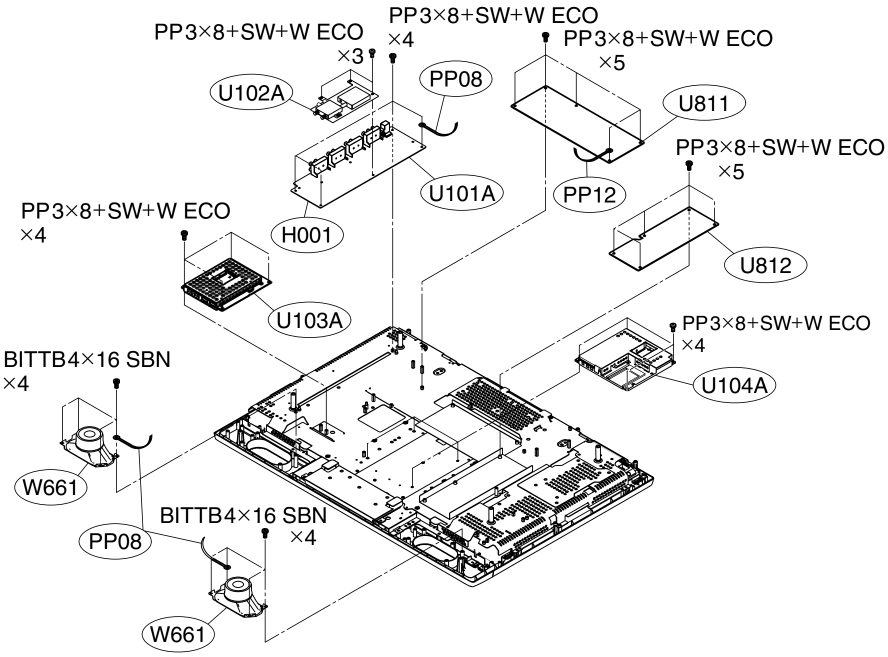
A450
PP3×8
+SW+W SBN
×5
BITTB4×16 SBN
×10
A445
A401
PP5×16
SW+W SBN
×5
A420

2. Remove the boards (FRONT AV, LED, KEY, PC-IN, D-TUNER) and piece key ass'y.

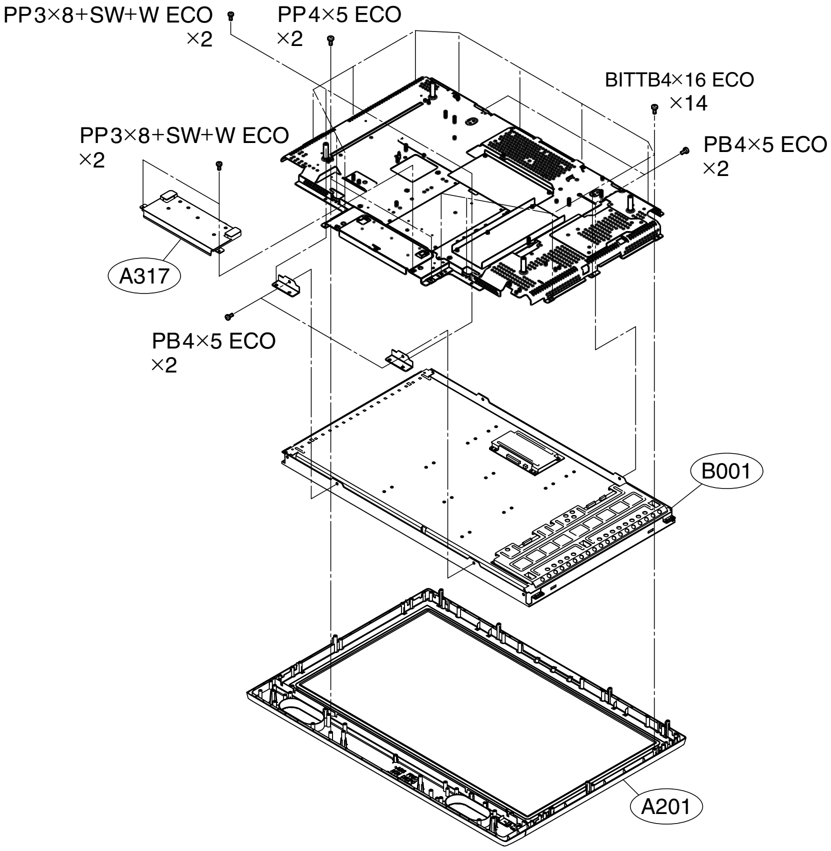


UF03
PP4×20+SW+W ECO
×2
PP3×8+SW+W ECO
×4
PP3×8+SW+W ECO
×3
PP3×8
+SW+W SBN
U101E
BITTB
3×12 SBN
×5
PP3×8
+SW+W SBN
×3
PP3×8
+SW+W SBN
×2
A340
PP3×8
+SW+W ECO
U101D
BITTB3×8 SBN
×3
4-40UNC
JFS-4S L=13
PP3×8+SW+W ECO
PP12
PP3×8+SW+W ECO
×4
U105A
PP3×8+SW+W ECO
P801
A315
BITTB3×12 SBN
×2
U101C
PP3×8+SW+W ECO
×4
PP08
U101B
PP3×8+SW+W ECO
×2
A320

3. Remove the boards (POWER, AC-IN, SIGNAL, AV TERMINAL, RF-SW TIF, SEINE FOR FPD) and speaker.

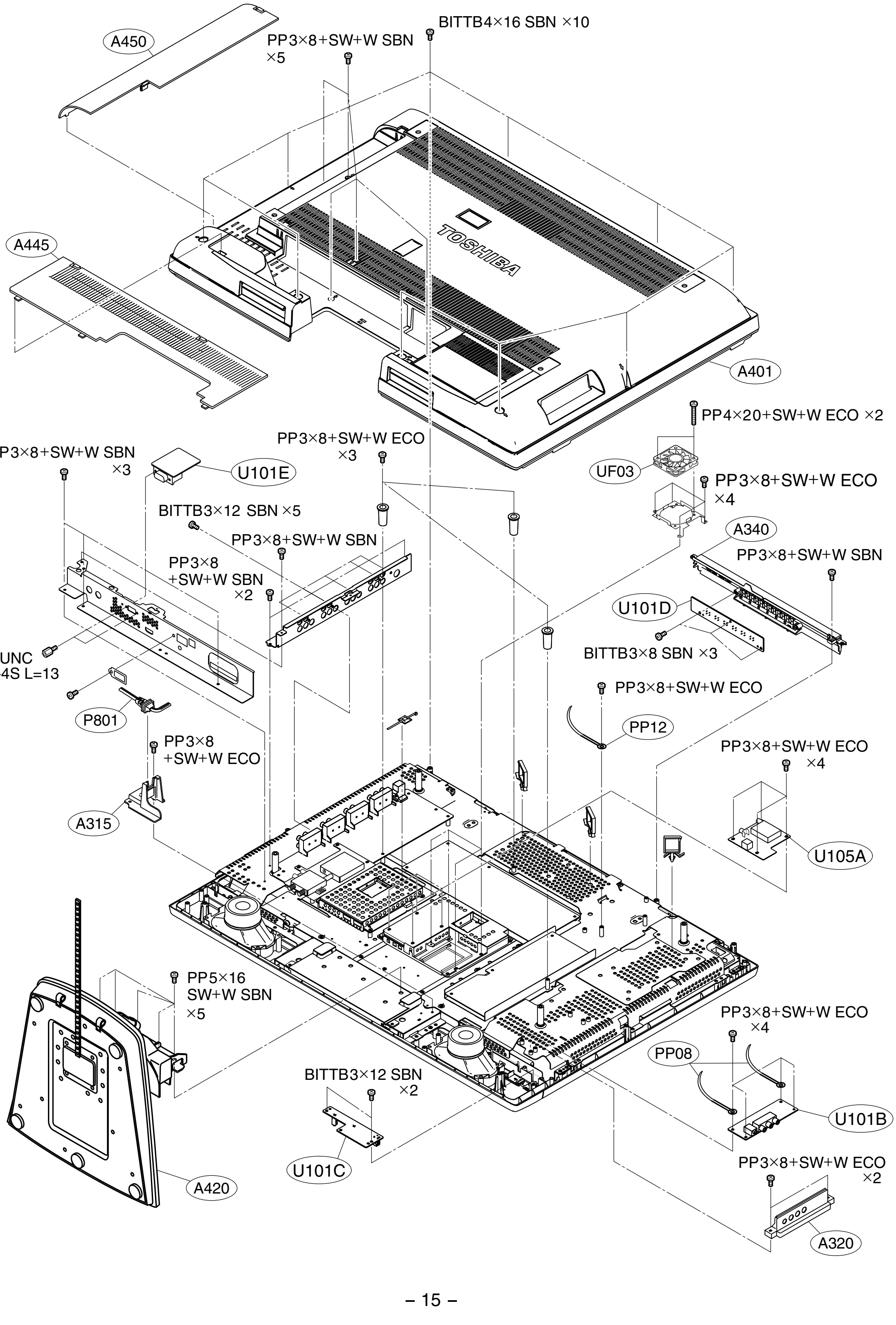

PP3×8+SW+W ECO
×3
PP3×8+SW+W ECO
×4
PP3×8+SW+W ECO
×5
U102A
PP08
U811
PP3×8+SW+W ECO
×5
U101A
PP12
PP3×8+SW+W ECO
×4
H001
U812
U103A
PP3×8+SW+W ECO
×4
BITTB4×16 SBN
×4
U104A
W661
BITTB4×16 SBN
×4
PP08
W661

4. Remove the display.


PP3×8+SW+W ECO
×2
PP4×5 ECO
×2
BITTB4×16 ECO
×14
PP3×8+SW+W ECO
×2
PB4×5 ECO
×2
A317
PB4×5 ECO
×2
B001
A201

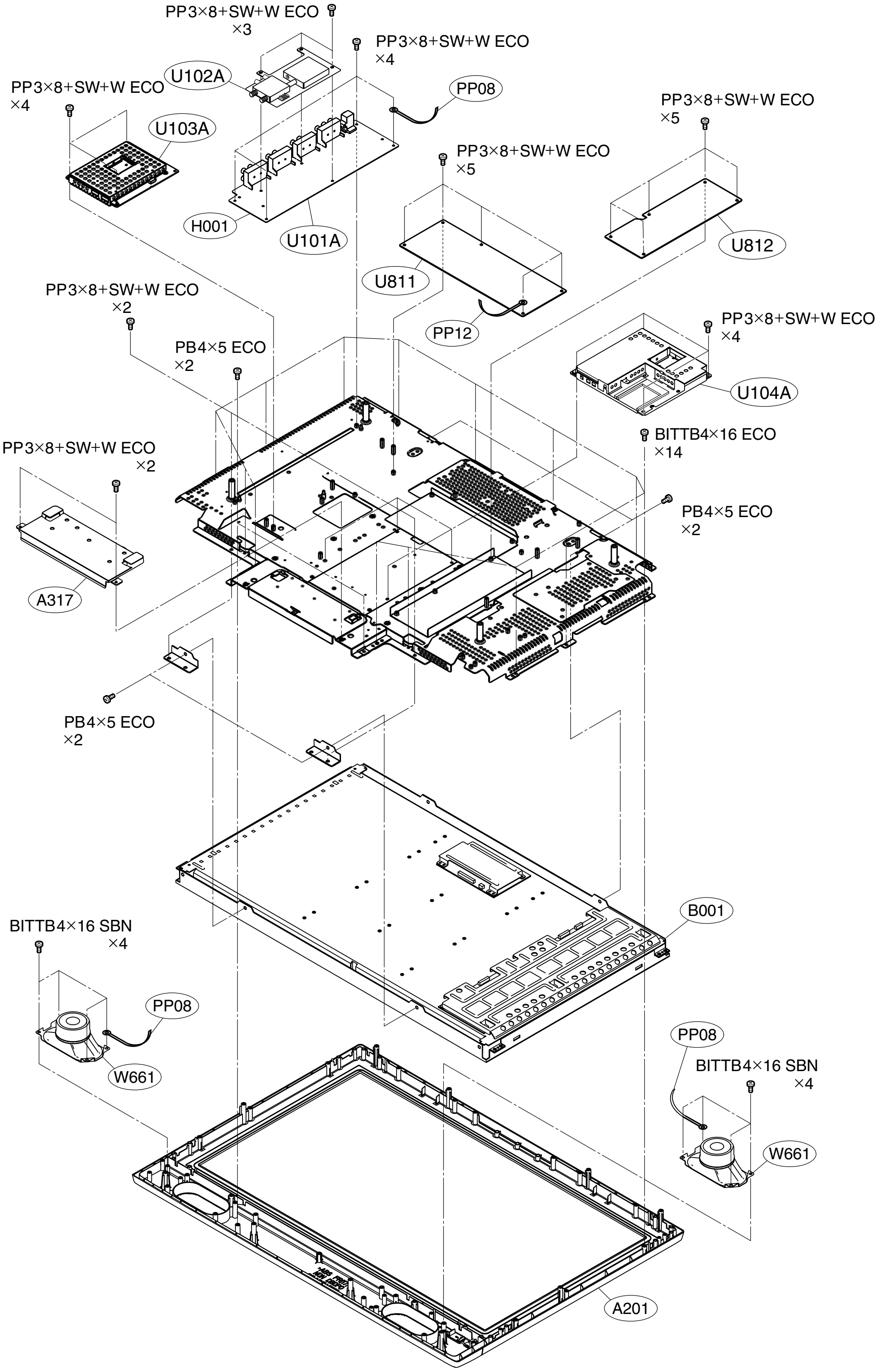
EXPLODED VIEWS

1. Chassis Block

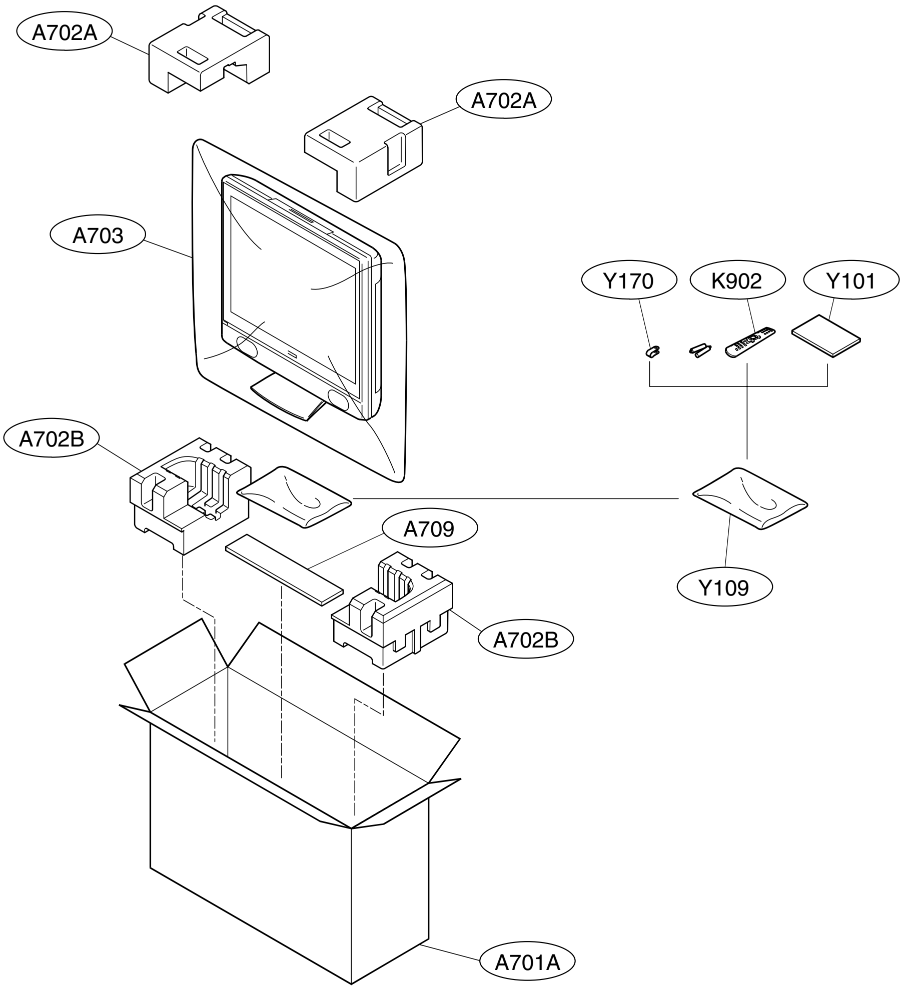


BITTB4×16 SBN ×10
A450
PP3×8+SW+W SBN
×5
TOSHIBA
A445
A401
PP4×20+SW+W ECO ×2
PP3×8+SW+W ECO
×3
PP3×8+SW+W SBN
×3
U101E
UF03
PP3×8+SW+W ECO
×4
BITTB3×12 SBN ×5
A340
PP3×8+SW+W SBN
PP3×8+SW+W SBN
PP3×8
+SW+W SBN
×2
U101D
BITTB3×8 SBN ×3
4-40UNC
JFS-4S L=13
PP3×8+SW+W ECO
P801
PP12
PP3×8
+SW+W ECO
PP3×8+SW+W ECO
×4
A315
U105A
PP5×16
SW+W SBN
×5
PP3×8+SW+W ECO
×4
PP08
BITTB3×12 SBN
×2
U101B
U101C
PP3×8+SW+W ECO
×2
A420
A320

2. Main Block


PP3×8+SW+W ECO ×3
PP3×8+SW+W ECO ×4
U102A
PP08
PP3×8+SW+W ECO ×4
U103A
PP3×8+SW+W ECO ×5
PP3×8+SW+W ECO ×5
H001
U101A
U812
U811
PP3×8+SW+W ECO ×2
PP12
PP3×8+SW+W ECO ×4
PB4×5 ECO ×2
U104A
BITTB4×16 ECO ×14
PP3×8+SW+W ECO ×2
PB4×5 ECO ×2
A317
PB4×5 ECO ×2
B001
BITTB4×16 SBN ×4
PP08
W661
PP08
BITTB4×16 SBN ×4
W661
A201

PACKING DISASSEMBLY


A702A
A702A
A703
Y170
K902
Y101
A702B
A709
Y109
A702B
A701A

CHASSIS AND CABINET REPLACEMENT PARTS LIST

WARNING: BEFORE SERVICING THIS CHASSIS, READ THE “SERVICE SAFETY PRECAUTIONS” ON PAGE 3 OF THIS MANUAL.

CAUTION: The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the SERVICE SAFETY PRECAUTIONS. Do not degrade the safety of the receiver through improper servicing.

NOTICE:
- *The part number must be used when ordering parts, in order to assist in processing, be sure to include the Model number and Description.*
- *The PC board assembly with * mark is no longer available after the end of the production.*

Model : 32HL95

Capacitors .... CD : Ceramic Disk PF : Plastic Film EL : Electrolytic
Resistors .... CF : Carbon Film CC : Carbon Composition MF : Metal Film
OMF : Oxide Metal Film VR : Variable Resistor FR : Fusible Resistor
(All CD and PF capacitors are ±5%, 50V and all resistors, ±5%, 1/6W unless otherwise noted.)

Location No.	Parts No.	Description
CAPACITORS		
C102	76073019	ELECTROLYTIC, 10V 470UF M 3A
C103	76109102	CERAMIC CHIP, 50V B 1000PF K
C104	76073084	ELECTROLYTIC, 50V 4.7UF M 3A
C105	76073019	ELECTROLYTIC, 10V 470UF M 3A
C108	76092730	CERAMIC CHIP, 16V B 0.1UF K
C121	76105330	CERAMIC CHIP, 50V CH 33PF J
C123	76105270	CERAMIC CHIP, 50V CH 27PF J
C124	76105220	CERAMIC CHIP, 50V CH 22PF J
C150	76073041	ELECTROLYTIC, 16V 470UF M 3A
C151	76109103	CERAMIC CHIP, 50V B 0.01UF K
C152	76109103	CERAMIC CHIP, 50V B 0.01UF K
C153	76109103	CERAMIC CHIP, 50V B 0.01UF K
C161	76109102	CERAMIC CHIP, 50V B 1000PF K
C162	76105101	CERAMIC CHIP, 50V CH 100PF J
C164	76092730	CERAMIC CHIP, 16V B 0.1UF K
C605	76109102	CERAMIC CHIP, 50V B 1000PF K
C606	76109102	CERAMIC CHIP, 50V B 1000PF K
C656	76797100	ELECTROLYTIC, 50V 10UF M
C660	76669479	ELECTROLYTIC, 50V 4.7UF M
C661	76669479	ELECTROLYTIC, 50V 4.7UF M
C662	76109681	CERAMIC CHIP, 50V B 680PF K
C663	76109681	CERAMIC CHIP, 50V B 680PF K
C670	76669100	ELECTROLYTIC, 50V 10UF M
C671	76669100	ELECTROLYTIC, 50V 10UF M
C673	76667470	ELECTROLYTIC, 25V 47UF M 3A
C674	76669010	ELECTROLYTIC, 50V 1UF M 3A
C675	76669339	ELECTROLYTIC, 50V 3.3UF M
C676	76797101	ELECTROLYTIC, 50V 100UF M
C678	76503041	PLASTIC FILM , 63V 0.1UF J
C679	76503041	PLASTIC FILM , 63V 0.1UF J
C680	76073072	ELECTROLYTIC, 35V 1000UF M 3A
C681	76073072	ELECTROLYTIC, 35V 1000UF M 3A
C682	76073072	ELECTROLYTIC, 35V 1000UF M 3A
C684	76109103	CERAMIC CHIP, 50V B 0.01UF K
C685	76109103	CERAMIC CHIP, 50V B 0.01UF K
⚠ C801	76503507	PLASTIC FILM, AC275V 0.22UF K
⚠ C802	76503507	PLASTIC FILM, AC275V 0.22UF K
⚠ C803	76503250	PLASTIC FILM 7E2G224J-SC
C804	76214103	CERAMIC DISC, 500V B 0.01UF K
C805	76092281	CERAMIC DISC, AC250V E 4700PF
C806	76092281	CERAMIC DISC, AC250V E 4700PF
C810	76073233	ELECTROLYTIC, 200V 560UF M
⚠ C811	76092569	CERAMIC DISC, AC250V E 2200PF M
⚠ C812	76092569	CERAMIC DISC, AC250V E 2200PF M
C813	76503047	PLASTIC FILM, 63V 0.33UF J
C815	76503049	PLASTIC FILM, 63V 0.47UF J
C816	76073183	ELECTROLYTIC CE04P 35V 220UF M 3A
C817	76567224	PLASTIC FILM, 50V 0.22UF J
C819	76214101	CERAMIC DISC, 500V B 100PF K
C820	76567224	PLASTIC FILM, 50V 0.22UF J
C821	76092343	CERAMIC DISC, 2KV 680PF K
C822	76092344	CERAMIC DISC, 2KV 820PF K
C823	76092341	CERAMIC DISC, 2KV R 470PF K
C824	76591102	PLASTIC FILM, 50V 1000PF J
C825	76503053	PLASTIC FILM, 63V 1UF J
C826	76092341	CERAMIC DISC, 2KV R 470PF K
C827	76678229	ELECTROLYTIC, 200V 2.2UF M 3A
C851	76092538	CERAMIC CHIP, 10V F 1UF Z
C852	76109102	CERAMIC CHIP, 50V B 1000PF K
C883	76073193	ELECTROLYTIC, 35V 2200UF M 3A
C884	76073193	ELECTROLYTIC, 35V 2200UF M 3A
C888	76109102	CERAMIC CHIP, 50V B 1000PF K
C889	76073094	ELECTROLYTIC, 50V 1000UF M 3A
C890	76503047	PLASTIC FILM, 63V 0.33UF J
C1101	76109103	CERAMIC CHIP, 50V B 0.01UF K
C1102	76109103	CERAMIC CHIP, 50V B 0.01UF K
C2607	76619048	ELECTROLYTIC CHIP, 25V 4.7UF M
C6600	76797470	ELECTROLYTIC, 50V 47UF M
C6601	76085944	ELECTROLYTIC, NP, 50V 2.2UF M 11L
C6602	76085944	ELECTROLYTIC, NP, 50V 2.2UF M 11L
C6603	76797229	ELECTROLYTIC, 50V 2.2UF M
C6604	76797229	ELECTROLYTIC, 50V 2.2UF M
C6605	76797470	ELECTROLYTIC, 50V 47UF M
C6606	76797229	ELECTROLYTIC, 50V 2.2UF M
C6607	76797229	ELECTROLYTIC, 50V 2.2UF M
C6608	76797229	ELECTROLYTIC, 50V 2.2UF M
C6609	76797229	ELECTROLYTIC, 50V 2.2UF M
C6610	76797229	ELECTROLYTIC, 50V 2.2UF M
C6612	76797229	ELECTROLYTIC, 50V 2.2UF M
C6613	76797479	ELECTROLYTIC, 50V 4.7UF M
C6614	76797479	ELECTROLYTIC, 50V 4.7UF M

Location No.	Parts No.	Description
C6615	76797229	ELECTROLYTIC, 50V 2.2UF M
C6616	76797229	ELECTROLYTIC, 50V 2.2UF M
C6617	76797100	ELECTROLYTIC, 50V 10UF M
C6620	76797100	ELECTROLYTIC, 50V 10UF M
C6621	76797100	ELECTROLYTIC, 50V 10UF M
C6990	76206478	ELECTROLYTIC, 50V 0.47UF M 7L 3A
C8001	76073072	ELECTROLYTIC, 35V 1000UF M 3A
C8110	76073233	ELECTROLYTIC, 200V 560UF M
CB01	76202221	ELECTROLYTIC, 10V 220UF M 7L 3A
CB02	76202221	ELECTROLYTIC, 10V 220UF M 7L 3A
CB03	76100104	CERAMIC CHIP, 25V F 0.1UF Z
CB04	76100104	CERAMIC CHIP, 25V F 0.1UF Z
CB05	76202221	ELECTROLYTIC, 10V 220UF M 7L 3A
CB38	76100104	CERAMIC CHIP, 25V F 0.1UF Z
CC11	76109102	CERAMIC CHIP, 50V B 1000PF K
CC12	76109102	CERAMIC CHIP, 50V B 1000PF K
CE04	76092281	CERAMIC DISC, AC250V E 4700PF
CE05	76092281	CERAMIC DISC, AC250V E 4700PF
CE07	76503049	PLASTIC FILM, 63V 0.47UF J
CE09	76668339	ELECTROLYTIC, 35V 3.3UF M 3A
CE10	76073217	ELECTROLYTIC, 200V 560UF M
CE12	76503041	PLASTIC FILM , 63V 0.1UF J
⚠ CE13	76092561	CERA CAP B 250V 101 CD70-B2GA101KYNS
⚠ CE14	76092561	CERA CAP B 250V 101 CD70-B2GA101KYNS
CE15	76092337	CERAMIC DISC, 2KV 220PF K
CE16	76073181	ELECTROLYTIC CE04P 35V 56UF M 3A
CE17	76092339	CERAMIC DISC, 2KV 330PF K
⚠ CE18	76503253	PLASTIC FILM, 1250VH 0.01UF H
CE23	76214471	CERAMIC DISC, 500V B 470PF K
CE24	76285104	CERAMIC CHIP, 50V B 0.1UF K
CE26	76795101	ELECTROLYTIC, 25V 100UF M
CE29	76436561	CERAMIC DISC, 50V SL 560PF J
CE40	76073183	ELECTROLYTIC CE04P 35V 220UF M 3A
CE42	76539104	PLASTIC FILM, 50V 0.1UF J
CE43	76503041	PLASTIC FILM , 63V 0.1UF J
CE51	76617023	ELECTROLYTIC, 16V 330UF M
CE52	76092179	CERAMIC CHIP, 25V B 0.22UF K
CE53	76092179	CERAMIC CHIP, 25V B 0.22UF K
CE55	76073181	ELECTROLYTIC CE04P 35V 56UF M 3A
CE73	76073186	ELECTROLYTIC CE04P 35V 470UF M 3A
CE74	76073189	ELECTROLYTIC, 35V 1000UF M 3A
CE75	76073128	ELECTROLYTIC CE04P 6.3V 1000UF M 3A
CE76	76073181	ELECTROLYTIC CE04P 35V 56UF M 3A
CE82	76676470	ELECTROLYTIC, 100V 47UF M 3A
CE83	76073175	ELECTROLYTIC CE04P 25V 1800UF M 3A
CE84	76073178	ELECTROLYTIC CE04P 25V 3300UF M 3A
CE85	76073188	ELECTROLYTIC CE04P 35V 680UF M 3A
CE86	76073188	ELECTROLYTIC CE04P 35V 680UF M 3A
CE87	76669100	ELECTROLYTIC, 50V 10UF M
CE90	76503047	PLASTIC FILM, 63V 0.33UF J
CE91	76503041	PLASTIC FILM , 63V 0.1UF J
CE92	76794101	ELECTROLYTIC, 16V 100UF M
CV10	76109102	CERAMIC CHIP, 50V B 1000PF K
CV68	76085988	ELECTROLYTIC, NP, 50V 1UF M 7L
CV72	76794471	ELECTROLYTIC, 16V 470UF M
CV74	76794101	ELECTROLYTIC, 16V 100UF M
CV76	76100104	CERAMIC CHIP, 25V F 0.1UF Z
CV78	76085988	ELECTROLYTIC, NP, 50V 1UF M 7L

RESISTORS

Location No.	Parts No.	Description
R103	76011101	CHIP, 1/20W 100 OHM J
R104	76011103	CHIP, 1/20W 10K OHM J
R105	76011273	CHIP, 1/20W 27K OHM J
R107	76000445	CHIP JUMPER, 1608TYPE
R108	76000445	CHIP JUMPER, 1608TYPE
R110	76011682	CHIP, 1/20W 6.8K OHM J
R111	76011391	CHIP, 1/20W 390 OHM J
R113	76000445	CHIP JUMPER, 1608TYPE
R114	76000445	CHIP JUMPER, 1608TYPE
R115	76011102	CHIP, 1/20W 1K OHM J
R120	76011331	CHIP, 1/20W 330 OHM J
R122	76000445	CHIP JUMPER, 1608TYPE
R151	76000445	CHIP JUMPER, 1608TYPE
R152	76000445	CHIP JUMPER, 1608TYPE
R161	76011102	CHIP, 1/20W 1K OHM J
R165	76011392	CHIP, 1/20W 3.9K OHM J
R166	76011472	CHIP, 1/20W 4.7K OHM J
R167	76011101	CHIP, 1/20W 100 OHM J
R168	76011101	CHIP, 1/20W 100 OHM J
R657	76011473	CHIP, 1/20W 47K OHM J
R658	76011473	CHIP, 1/20W 47K OHM J
R659	76011103	CHIP, 1/20W 10K OHM J
R670	76011472	CHIP, 1/20W 4.7K OHM J
R671	76011472	CHIP, 1/20W 4.7K OHM J
R672	76011182	CHIP, 1/20W 1.8K OHM J
R673	76011182	CHIP, 1/20W 1.8K OHM J
R678	76871229	CHIP, 1/8W 2.2 OHM J
R679	76871229	CHIP, 1/8W 2.2 OHM J
R680	76011103	CHIP, 1/20W 10K OHM J
R681	76011103	CHIP, 1/20W 10K OHM J
R683	76011223	CHIP, 1/20W 22K OHM J
R684	76011104	CHIP, 1/20W 100K OHM J
R685	76011183	CHIP, 1/20W 18K OHM J
R686	76011102	CHIP, 1/20W 1K OHM J
R687	76871102	CHIP, 1/8W 1K OHM J
R688	76871102	CHIP, 1/8W 1K OHM J
R689	76871102	CHIP, 1/8W 1K OHM J
R695	76871102	CHIP, 1/8W 1K OHM J
R696	76871102	CHIP, 1/8W 1K OHM J
R697	76871102	CHIP, 1/8W 1K OHM J
R730	76366472	CARBON FILM, 1/6W 4.7K OHM J
R731	76366472	CARBON FILM, 1/6W 4.7K OHM J
R732	76366472	CARBON FILM, 1/6W 4.7K OHM J
⚠ R801	76004716	METAL GLAZE, 1/2W 2.2M OHM J
R803	76366182	CARBON FILM, 1/6W 1.8K OHM J
R805	76366102	CARBON FILM, 1/6W 1K OHM J
R806	76552470	OXIDE METAL FILM, 1/2W 47 OHM J
R807	76366153	CARBON FILM, 1/6W 15K OHM J
R808	76552101	OXIDE METAL FILM, 1/2W 100 OHM J
R809	76321689	OXIDE METAL FILM, 1/2W 6.8 OHM J
R812	76552681	OXIDE METAL FILM, 1/2W 680 OHM J
R813	76366120	CARBON FILM, 1/6W 12 OHM J
R814	76552330	OXIDE METAL FILM, 1/2W 33 OHM J
R815	76552100	OXIDE METAL FILM, 1/2W 10 OHM J
R816	76011681	CHIP, 1/20W 680 OHM J
R817	76382823	OXIDE FILM 1W 82K J
R821	76382680	OXIDE METAL FILM, 1W 68 OHM J
R827	76383103	OXIDE METAL FILM, 2W 10K OHM J
R850	76011101	CHIP, 1/20W 100 OHM J
R851	76011102	CHIP, 1/20W 1K OHM J
R852	76011471	CHIP, 1/20W 470 OHM J
R853	76011103	CHIP, 1/20W 10K OHM J
R854	76011102	CHIP, 1/20W 1K OHM J
R855	76011471	CHIP, 1/20W 470 OHM J
R856	76011102	CHIP, 1/20W 1K OHM J
R857	76011471	CHIP, 1/20W 470 OHM J
R858	76011471	CHIP, 1/20W 470 OHM J
R859	76011102	CHIP, 1/20W 1K OHM J
R861	76007416	CERAMIC COVERED, 5W 82 OHM J
R862	76120002	CERAMIC COVERED G 5W 68 J
R873	76366152	CARBON FILM, 1/6W 1.5K OHM J
R890	76011102	CHIP, 1/20W 1K OHM J

Location No.	Parts No.	Description
⚠ R899	76004718	METAL GLAZE, 1/2W 8.2M OHM J
R4100	76011102	CHIP, 1/20W 1K OHM J
R4101	76011681	CHIP, 1/20W 680 OHM J
R4102	76011471	CHIP, 1/20W 470 OHM J
R4103	76011681	CHIP, 1/20W 680 OHM J
R4104	76011102	CHIP, 1/20W 1K OHM J
R4105	76011102	CHIP, 1/20W 1K OHM J
R4106	76011681	CHIP, 1/20W 680 OHM J
R4107	76011471	CHIP, 1/20W 470 OHM J
R4108	76011681	CHIP, 1/20W 680 OHM J
R4109	76011102	CHIP, 1/20W 1K OHM J
R6601	76011223	CHIP, 1/20W 22K OHM J
R6602	76011103	CHIP, 1/20W 10K OHM J
R6603	76011104	CHIP, 1/20W 100K OHM J
R6604	76011102	CHIP, 1/20W 1K OHM J
R6614	76011102	CHIP, 1/20W 1K OHM J
R6615	76011102	CHIP, 1/20W 1K OHM J
R6616	76011104	CHIP, 1/20W 100K OHM J
R6617	76011104	CHIP, 1/20W 100K OHM J
R6620	76011101	CHIP, 1/20W 100 OHM J
R6622	76011100	CHIP, 1/20W 10 OHM J
R6623	76011100	CHIP, 1/20W 10 OHM J
R6624	76011100	CHIP, 1/20W 10 OHM J
R6625	76011473	CHIP, 1/20W 47K OHM J
R6626	76011473	CHIP, 1/20W 47K OHM J
R6627	76011473	CHIP, 1/20W 47K OHM J
R6628	76011473	CHIP, 1/20W 47K OHM J
R6629	76011103	CHIP, 1/20W 10K OHM J
R6630	76011103	CHIP, 1/20W 10K OHM J
R6631	76011103	CHIP, 1/20W 10K OHM J
R6632	76011103	CHIP, 1/20W 10K OHM J
R6633	76011100	CHIP, 1/20W 10 OHM J
R6634	76011100	CHIP, 1/20W 10 OHM J
R6635	76011473	CHIP, 1/20W 47K OHM J
R6636	76011473	CHIP, 1/20W 47K OHM J
R6637	76011100	CHIP, 1/20W 10 OHM J
R6638	76011473	CHIP, 1/20W 47K OHM J
R6639	76011473	CHIP, 1/20W 47K OHM J
R6640	76011100	CHIP, 1/20W 10 OHM J
R6641	76011100	CHIP, 1/20W 10 OHM J
R6642	76011100	CHIP, 1/20W 10 OHM J
R6643	76011473	CHIP, 1/20W 47K OHM J
R6644	76011473	CHIP, 1/20W 47K OHM J
R6645	76011473	CHIP, 1/20W 47K OHM J
R6646	76011473	CHIP, 1/20W 47K OHM J
R6647	76011100	CHIP, 1/20W 10 OHM J
R6648	76011100	CHIP, 1/20W 10 OHM J
R6649	76011563	CHIP, 1/20W 56K OHM J
R6650	76011563	CHIP, 1/20W 56K OHM J
R6651	76011393	CHIP, 1/20W 39K OHM J
R6652	76011393	CHIP, 1/20W 39K OHM J
R6653	76011222	CHIP, 1/20W 2.2K OHM J
R6654	76011222	CHIP, 1/20W 2.2K OHM J
R6655	76011103	CHIP, 1/20W 10K OHM J
R6656	76011103	CHIP, 1/20W 10K OHM J
R6657	76011100	CHIP, 1/20W 10 OHM J
R6658	76011473	CHIP, 1/20W 47K OHM J
R6659	76011101	CHIP, 1/20W 100 OHM J
R6660	76011473	CHIP, 1/20W 47K OHM J
R6661	76011103	CHIP, 1/20W 10K OHM J
RA71	76011683	CHIP, 1/20W 68K OHM J
RA72	76011223	CHIP, 1/20W 22K OHM J
RA73	76011103	CHIP, 1/20W 10K OHM J
RA74	76000445	CHIP JUMPER, 1608TYPE
RA76	76011223	CHIP, 1/20W 22K OHM J
RA77	76011103	CHIP, 1/20W 10K OHM J

Location No.	Parts No.	Description
RA78	76000445	CHIP JUMPER, 1608TYPE
RA79	76000445	CHIP JUMPER, 1608TYPE
RB08	76011470	CHIP, 1/20W 47 OHM J
RB09	76011470	CHIP, 1/20W 47 OHM J
RB10	76011331	CHIP, 1/20W 330 OHM J
RB15	76011471	CHIP, 1/20W 470 OHM J
RB24	76000445	CHIP JUMPER, 1608TYPE
RC11	76011821	CHIP, 1/20W 820 OHM J
RC12	76011821	CHIP, 1/20W 820 OHM J
RE03	76553683	OXIDE METAL FILM, 1W 68K OHM J
RE04	76553683	OXIDE METAL FILM, 1W 68K OHM J
RE05	76554683	OXIDE RES 2W 68K J
RE12	76552221	OXIDE METAL FILM, 1/2W 220 OHM J
RE13	76366473	CARBON FILM, 1/6W 47K OHM J
RE15	76366102	CARBON FILM, 1/6W 1K OHM J
RE16	76366102	CARBON FILM, 1/6W 1K OHM J
RE17	76366363	CARBON FILM, 1/6W 36K OHM J
RE18	76019463	METAL PLATE, 2W 0.22 OHM J
RE19	76310829	OXIDE METAL FILM, 1/2W 8.2 OHM J
RE20	76871152	CHIP, 1/8W 1.5K OHM J
RE23	76552152	OXIDE METAL FILM, 1/2W 1.5K OHM J
RE25	76011103	CHIP, 1/20W 10K OHM J
RE26	76011271	CHIP, 1/20W 270 OHM J
RE27	76011472	CHIP, 1/20W 4.7K OHM J
RE40	76871681	CHIP, 1/8W 680 OHM J
RE43	76011753	CHIP, 1/20W 75K OHM J
RE44	76000593	METAL FILM CHIP 1/16W 10K F
RE45	76000445	CHIP JUMPER, 1608TYPE
RE46	76000605	CHIP, 1/16W 6.8K OHM F
RE48	76011222	CHIP, 1/20W 2.2K OHM J
RE51	76011393	CHIP, 1/20W 39K OHM J
RE52	76011152	CHIP, 1/20W 1.5K OHM J
RE53	76871222	CHIP, 1/8W 2.2K OHM J
RE54	76871222	CHIP, 1/8W 2.2K OHM J
RE56	76190012	METAL FILM CHIP 1/16W 1.5K F
RE57	76190012	METAL FILM CHIP 1/16W 1.5K F
RE58	76190013	CHIP RES 1/16W 22K F
RE59	76011334	CHIP, 1/20W 330K OHM J
RE60	76011473	CHIP, 1/20W 47K OHM J
RE61	76190014	METAL FILM CHIP 1/16W 18K F
RE73	76011224	CHIP, 1/20W 220K OHM J
RE74	76553680	OXIDE METAL FILM, 1W 68 OHM J
RE78	76011102	CHIP, 1/20W 1K OHM J
RE79	76011473	CHIP, 1/20W 47K OHM J
RE82	76011473	CHIP, 1/20W 47K OHM J
RE83	76011473	CHIP, 1/20W 47K OHM J
RE84	76011152	CHIP, 1/20W 1.5K OHM J
RE87	76011473	CHIP, 1/20W 47K OHM J
RE88	76011103	CHIP, 1/20W 10K OHM J
RE91	76011103	CHIP, 1/20W 10K OHM J
RE92	76011102	CHIP, 1/20W 1K OHM J
RE93	76011223	CHIP, 1/20W 22K OHM J
RE94	76871271	CHIP, 1/8W 270 OHM J
RE95	76553122	OXIDE METAL FILM, 1W 1.2K OHM J
RE96	76011473	CHIP, 1/20W 47K OHM J
RE97	76553681	OXIDE RES 1W 68 J
RE98	76011104	CHIP, 1/20W 100K OHM J
RR01	76871750	CHIP, 1/8W 75 OHM J
RR02	76871750	CHIP, 1/8W 75 OHM J
RR03	76871750	CHIP, 1/8W 75 OHM J
RR04	76011330	CHIP, 1/20W 33 OHM J
RR05	76011330	CHIP, 1/20W 33 OHM J
RR06	76011330	CHIP, 1/20W 33 OHM J
RV07	76011750	CHIP, 1/20W 75 OHM J
RV18	76011750	CHIP, 1/20W 75 OHM J
RV19	76011750	CHIP, 1/20W 75 OHM J

Location No.	Parts No.	Description
RV20	76000445	CHIP JUMPER, 1608TYPE
RV21	76011750	CHIP, 1/20W 75 OHM J
RV22	76000445	CHIP JUMPER, 1608TYPE
RV23	76000445	CHIP JUMPER, 1608TYPE
RV25	76011750	CHIP, 1/20W 75 OHM J
RV26	76011750	CHIP, 1/20W 75 OHM J
RV27	76011750	CHIP, 1/20W 75 OHM J
RV28	76011750	CHIP, 1/20W 75 OHM J
RV29	76011750	CHIP, 1/20W 75 OHM J
RV30	76011750	CHIP, 1/20W 75 OHM J
RV40	76000445	CHIP JUMPER, 1608TYPE
RV41	76000445	CHIP JUMPER, 1608TYPE
RV42	76000445	CHIP JUMPER, 1608TYPE
RV43	76000445	CHIP JUMPER, 1608TYPE
RV44	76000445	CHIP JUMPER, 1608TYPE
RV74	76011750	CHIP, 1/20W 75 OHM J
RV75	76011750	CHIP, 1/20W 75 OHM J
RV76	76011750	CHIP, 1/20W 75 OHM J
RV78	76011473	CHIP, 1/20W 47K OHM J
RV82	76011822	CHIP, 1/20W 8.2K OHM J
RV600	76011473	CHIP, 1/20W 47K OHM J

COIL & TRANSFORMERS

Location No.	Parts No.	Description
L101	23248398	COIL, CHOKE, TLN3278D
L102	23103828	INDUCTOR, BEAD, TEM2121M
L103	23103828	INDUCTOR, BEAD, TEM2121M
L122	23246654	COIL, CHIP, TRF4220CG
L151	23103828	INDUCTOR, BEAD, TEM2121M
L152	23103828	INDUCTOR, BEAD, TEM2121M
⚠ L801	23217782	TRANSFORMER,CHOKE8.1MH3.0ATPW2067AS
⚠ L802	23217783	TRANSFORMER,CHOKE3.05MH3.0ATPW2068AS
L805	23103302	FERRITE CHOKE, TEM2011AH
L806	23248417	COIL, CHOKE, TLN3481AH
L807	23248417	COIL, CHOKE, TLN3481AH
L874	23103302	FERRITE CHOKE, TEM2011AH
L875	23103302	FERRITE CHOKE, TEM2011AH
L876	23103302	FERRITE CHOKE, TEM2011AH
L878	23103302	FERRITE CHOKE, TEM2011AH
L883	23248466	COIL, CHOKE COIL 4.7MMH 8.0A TLN3551AH
L888	23248432	COIL, CHOKE, TLN3499AH
L921	75001248	CHIP BEADS INDUCTOR
L922	75001248	CHIP BEADS INDUCTOR
L923	75001248	CHIP BEADS INDUCTOR
L925	75001248	CHIP BEADS INDUCTOR
L926	75001248	CHIP BEADS INDUCTOR
L930	75001248	CHIP BEADS INDUCTOR
L931	75001248	CHIP BEADS INDUCTOR
L932	75001248	CHIP BEADS INDUCTOR
L933	75001248	CHIP BEADS INDUCTOR
L934	75001248	CHIP BEADS INDUCTOR
L935	75001248	CHIP BEADS INDUCTOR
L936	75001248	CHIP BEADS INDUCTOR
L943	75001248	CHIP BEADS INDUCTOR
LE11	23103302	FERRITE CHOKE, TEM2011AH
LE12	23103307	FERRITR CHOKE, TEM2014AA
LE52	23289025	COIL, PEAKING, TRF4330AT
LE53	23248399	COIL, CHOKE, TLN3283D
LE71	23248387	COIL, CHOKE 9X11H 22MMHK 2.5A TLN3499AA
LE72	23248386	COIL, CHOKE 9X11H 2.0MMH 4.0A TLN3481AA
LE73	23248417	COIL, CHOKE, TLN3481AH
LE74	23248417	COIL, CHOKE, TLN3481AH
⚠ T801	23211881	COIL, LINE FILTER 34X25.5H 13MH TRF3252AD
⚠ T862	23217804	TRANSFORMER, CONVERTER TPW3562BS
⚠ TE62	23217805	TRANSFORMER, CONVERTER TPW3563BS

SEMICONDUCTORS

Location No.	Parts No.	Description
Q101	23205506	TRANSISTOR, 2SC4081 Q
Q102	23205507	TRANSISTOR, 2SA1576A Q
Q161	23205506	TRANSISTOR, 2SC4081 Q
Q651	23205325	TRANSISTOR, RN2404(F)
Q652	23205302	TRANSISTOR, 2SC3326-B(F)
Q653	23205302	TRANSISTOR, 2SC3326-B(F)
Q662	23205325	TRANSISTOR, RN2404(F)
Q663	23205506	TRANSISTOR, 2SC4081 Q
Q664	23205506	TRANSISTOR, 2SC4081 Q
Q665	23205506	TRANSISTOR, 2SC4081 Q
Q670	23085039	IC, TA8246AHQ
Q671	23205302	TRANSISTOR, 2SC3326-B(F)
Q672	23205302	TRANSISTOR, 2SC3326-B(F)
Q673	23205443	TRANSISTOR, 2SA1162-Y(F)
Q801	23135087	IC, HYBRID VDS=200V STR-Z4317
⚠ Q826	23000823	IC, PHOTO COUPLER, TLP421F(GR)
Q851	23205446	TRANSISTOR, 2SC2412K, Q T146
Q852	23205446	TRANSISTOR, 2SC2412K, Q T146
Q853	23205443	TRANSISTOR, 2SA1162-Y(F)
Q854	23205446	TRANSISTOR, 2SC2412K, Q T146
Q855	23205446	TRANSISTOR, 2SC2412K, Q T146
Q883	23135091	IC, SE024N
Q4100	23085635	TRANSISTOR, 2SC3437-Y(TE85L,F)
Q4101	23085635	TRANSISTOR, 2SC3437-Y(TE85L,F)
Q4102	23085635	TRANSISTOR, 2SC3437-Y(TE85L,F)
Q4103	23085635	TRANSISTOR, 2SC3437-Y(TE85L,F)
Q6600	23318977	IC, MC14052BF
Q6601	23205392	TRANSISTOR, 2SC5343UF-Y(BULK)
Q6602	23205392	TRANSISTOR, 2SC5343UF-Y(BULK)
Q6603	23205329	TRANSISTOR, RN1404(F)
Q6604	23205329	TRANSISTOR, RN1404(F)
Q6605	23318981	IC, MC14053BF
QB04	23205463	TRANSISTOR, 2SC2712-Y(TE85L,F)
QB07	23205463	TRANSISTOR, 2SC2712-Y(TE85L,F)
QE01	23135089	IC, HYBRID 650V STR-W6756
QE21	23205292	TRANSISTOR, 2SD2396
⚠ QE26	23000823	IC, PHOTO COUPLER, TLP421F(GR)
QE40	23085463	IC, SI-8050E
QE52	23205567	TRANSISTOR, CHIP R1=R2=22K SMT RN2403(TE85L,F)
QE53	23205330	TRANSISTOR, RN1403(F)
QE64	23085415	IC, BD4746G
QE71	23135085	IC, CE-1050
QE73	23135084	IC, IC, HYBRID IC DCDC CONVERT MPD6S011S
QE74	23205330	TRANSISTOR, RN1403(F)
QE75	23205446	TRANSISTOR, 2SC2412K, Q T146
QE83	23085389	IC, NJM431L
QE90	23085423	IC, KIA7809API-U/P
QE92	23205446	TRANSISTOR, 2SC2412K, Q T146
QE93	23205301	TRANSISTOR, 2SA1887(FA,F)
QE94	23205292	TRANSISTOR, 2SD2396
QE95	23205446	TRANSISTOR, 2SC2412K, Q T146
QE96	23205301	TRANSISTOR, 2SA1887(FA,F)
QE97	23205569	TRANSISTOR, CHIP VCEO=120V 2SC2713-GR(TE85L,F)
QE98	23205568	TRANSISTOR, CHIP VCEO=-120V 2SA1163-GR(TE85L,F)
QV16	23085823	IC,2IN-1OUTSW6DBAMPCLP(PBFMM1508XNRE)
QV17	23205329	TRANSISTOR, RN1404(F)
QV61	23205329	TRANSISTOR, RN1404(F)
D670	23362140	DIODE, KDS160-RTK
D671	23362140	DIODE, KDS160-RTK
D674	23362140	DIODE, KDS160-RTK
D675	23362140	DIODE, KDS160-RTK
D676	23362140	DIODE, KDS160-RTK
D677	23362140	DIODE, KDS160-RTK
D678	23362140	DIODE, KDS160-RTK
D679	23362140	DIODE, KDS160-RTK

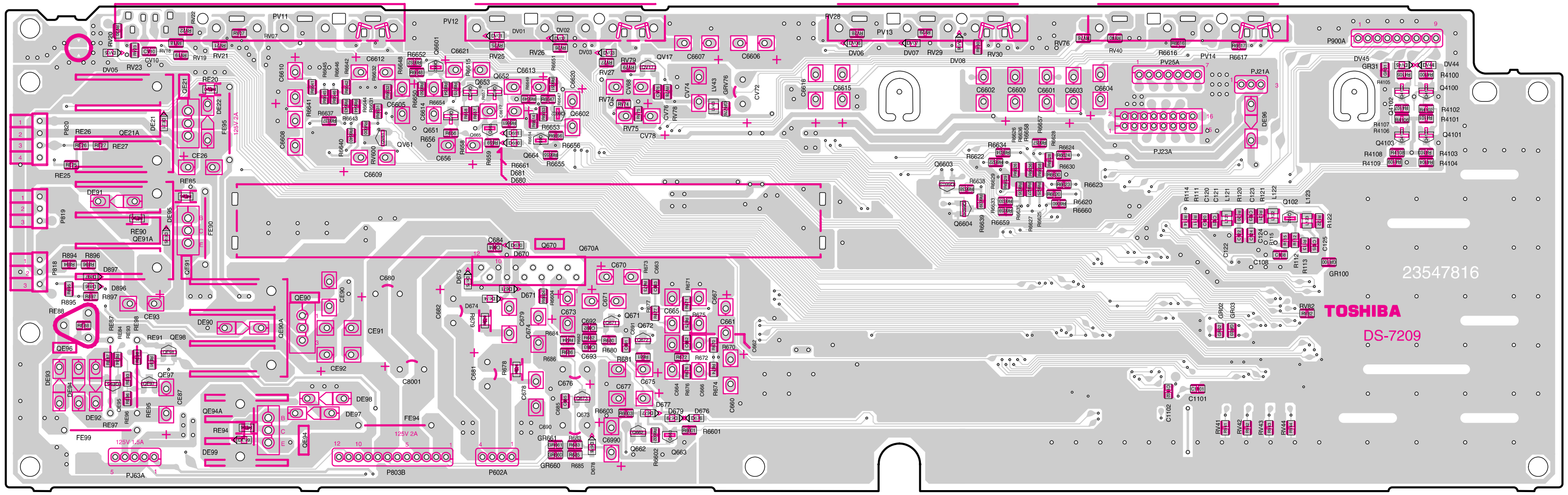
Location No.	Parts No.	Description
D680	23362140	DIODE, KDS160-RTK
D681	23362140	DIODE, KDS160-RTK
D801	23362200	DIODE, VRM=600V IO=6A SIP D5SB60, 7009F07
D805	23357627	DIODE, ZENER, RD9.1ESA B1
D806	23357666	DIODE, ZENER, RD27ESA B3
D809	23357654	DIODE, ZENER, RD36ESA B3
D810	23357666	DIODE, ZENER, RD27ESA B3
D811	23357511	DIODE, AG01A
D812	23357625	DIODE, ZENER, RD9.1ESA B3
D813	23357512	DIODE, AL01Z
D852	23357697	DIODE, 1SS133
D883	23362196	DIODE, SCHOTTKY VRM90V 20A RB215T-90
D884	23362196	DIODE, SCHOTTKY VRM90V 20A RB215T-90
D885	23357408	DIODE, FMX-12S(023-108)
⚠ D899	76000656	VARISTOR, TNR15G471K
DA01	23362042	DIODE, ZENER, UDZS6.8B
DA06	23362042	DIODE, ZENER, UDZS6.8B
DA07	23362042	DIODE, ZENER, UDZS6.8B
DB01	23358606	DIODE, LED RED, SLR-56VC3FPQ
DB04	23358605	DIODE, LED GREEN, SLR-56MC3FPQR
DB20	23357406	DIODE, ZENER, UDZS5.6B
DB22	23357703	DIODE, 1SS355
DB23	23357703	DIODE, 1SS355
DE01	23362204	DIODE, DIODE, D3SB60 ,7109F08
DE02	23357511	DIODE, AG01A
DE03	23357511	DIODE, AG01A
DE05	23357104	DIODE, 1SS244
DE06	23357366	DIODE, FR105-B5
DE07	23362103	DIODE, ZENER, DZ33 BS B
DE09	23362074	DIODE, ZENER, DZ6.8 BS B
DE11	23357709	DIODE, RU1P
DE12	23357512	DIODE, AL01Z
DE13	23357512	DIODE, AL01Z
DE14	23357512	DIODE, AL01Z
DE15	23362099	DIODE, ZENER, DZ27 BS B
DE16	23357880	DIODE, ZENER, MTZJ20B
DE17	23357512	DIODE, AL01Z
DE19	23357854	DIODE, ZENER, MTZJ10B
DE21	23357703	DIODE, 1SS355
DE22	23357866	DIODE, ZENER, MTZJ12C
DE50	23357706	DIODE, AK04
DE51	23357842	DIODE, ZENER, MTZJ6.8B
DE52	23357703	DIODE, 1SS355
DE54	23357703	DIODE, 1SS355
DE55	23357748	DIODE, ZENER, MA8062-M
DE56	23357800	DIODE, ZENER, MA8300-H
DE72	23357366	DIODE, FR105-B5
DE73	23362197	DIODE, SCHOTTKY VRM60V 10A RB085T-60
DE75	23357408	DIODE, FMX-12S(023-108)
DE77	23362197	DIODE, SCHOTTKY VRM60V 10A RB085T-60
DE90	23357866	DIODE, ZENER, MTZJ12C
DE92	23357856	DIODE, ZENER, MTZJ10D
DE93	23357861	DIODE, ZENER, MTZJ11A
DE94	23357862	DIODE, ZENER, MTZJ11B
DE96	23357840	DIODE, ZENER, MTZJ6.2B
DE97	23357869	DIODE, ZENER, MTZJ13C
DE98	23357869	DIODE, ZENER, MTZJ13C
DE99	23357703	DIODE, 1SS355
DV05	23362042	DIODE, ZENER, UDZS6.8B
IC414	23085936	IC, RESET IC BU4245G-TR
IC710	75001217	IC, TC7SH04FU, INVERTER
IC909	75001247	IC, TC7SH32FU(TE85LF)

Location No.	Parts No.	Description
MISCELLANEOUS		
⚠ B001	23301643	DISPLAY, 05SHP32 LQ315T3LZ21
B315	23717214	SCREW, BITTB3X12SBN
B401	23717225	SCREW, PP4X20+SW+W SBN
D801B	23717240	SCREW
D883B	23717240	SCREW
D884B	23717240	SCREW
DE73B	23717240	SCREW
DE75B	23717240	SCREW
DE77B	23717240	SCREW
E730A	23965241	TAPE, CC #12 10MM L30M
E730B	23960136	ADHESIVE, SILICONE, TSE3843-W
E871B	23960136	ADHESIVE, SILICONE, TSE3843-W
⚠ F801	23144319	FUSE, CARTRIDGE, 125V 8A, 5.2X20
F801A	23165433	FUSE HOLDER, 5.2
F801B	23165433	FUSE HOLDER, 5.2
⚠ F802	23144227	FUSE, AXIAL, 125V 5A
⚠ F889	23144715	FUSE, AXIAL 125V 5.0A
⚠ FE01	23144380	FUSE, RADIAL LEAD SUB-MINIATUR 250V 3.15A
⚠ FE72	23144708	FUSE, AXIAL 125V 1.0A
⚠ FE73	23144715	FUSE, AXIAL 125V 5.0A
⚠ FE74	23144715	FUSE, AXIAL 125V 5.0A
⚠ FE75	23144715	FUSE, AXIAL 125V 5.0A
⚠ FE76	23144714	FUSE, AXIAL 125V 4.0A
⚠ FE94	23144710	FUSE, AXIAL 125V 2.0A
⚠ FE95	23144710	FUSE, AXIAL 125V 2.0A
⚠ FE99	23144709	FUSE, AXIAL 125V 1.5A
GE50	23103302	FERRITE CHOKE, TEM2011AH
GE51	76000445	CHIP JUMPER, 1608TYPE
GR02	76000445	CHIP JUMPER, 1608TYPE
GR03	76000445	CHIP JUMPER, 1608TYPE
GR04	76000445	CHIP JUMPER, 1608TYPE
GR05	76000445	CHIP JUMPER, 1608TYPE
GR31	76000445	CHIP JUMPER, 1608TYPE
GR34	76000445	CHIP JUMPER, 1608TYPE
GR35	76000445	CHIP JUMPER, 1608TYPE
GR100	76000445	CHIP JUMPER, 1608TYPE
GR112	76000445	CHIP JUMPER, 1608TYPE
GR113	76000445	CHIP JUMPER, 1608TYPE
GR114	76000445	CHIP JUMPER, 1608TYPE
GR612	76000445	CHIP JUMPER, 1608TYPE
GR613	76000445	CHIP JUMPER, 1608TYPE
GR661	76011223	CHIP, 1/20W 22K OHM J
⚠ H003	23344525	SWITCH, 2I3O BUNPAI US DIG RSU143
H003A	23368943	CABLE, PH0NO 350MM JLC YAF11-1194N
H003B	23368943	CABLE, PH0NO 350MM JLC YAF11-1194N
H003C	23747055	NUT, F-CONNECTOR 2H BS
K903	23306644	REMOCON IR, IR BLASTER G-LINK VTR CONT 32HL95
KB01	23009710	REMOCON RECEIVER, GP1UE281RK
MJ22	23389310	CABLE, FFC 0.5 50P L70 23LC100_MJ22
MJ60	23389310	CABLE, FFC 0.5 50P L70 23LC100_MJ22
MZ01	23368908	CABLE, LVDS30P170MM SHP T2 E30-X30
P601	23713755	PLUG, 4P 2.5MM G, B4B-EH-F1-TV4
P602A	23713937	CONNECTOR, PLUG 4P B4B-PH-K-S(LF)
P602B	23713937	CONNECTOR, PLUG 4P B4B-PH-K-S(LF)
P661	23023302	EARPHONE JACK
⚠ P800	23713702	PLUG, 2P 11.88MM W VT
⚠ P801	23372264	POWER CORD, U/C 125V10A HSV 5 CMC-02P 11111
P803A	23713944	CONNECTOR, CONNECT B12B-PH-K-S(LF)
P803B	23713944	CONNECTOR, CONNECT B12B-PH-K-S(LF)
P804	23713942	CONNECTOR, CONNECT B10B-PH-K-S(LF)
P805	23713942	CONNECTOR, CONNECT B10B-PH-K-S(LF)
⚠ P811A	23713909	CONNECTOR, CONNECTOR B4P-VH(LF)
⚠ P811B	23713909	CONNECTOR, CONNECTOR B4P-VH(LF)
⚠ P812A	23713910	CONNECTOR, CONNECTOR B5P-VH(LF)
⚠ P812B	23713910	CONNECTOR, CONNECTOR B5P-VH(LF)

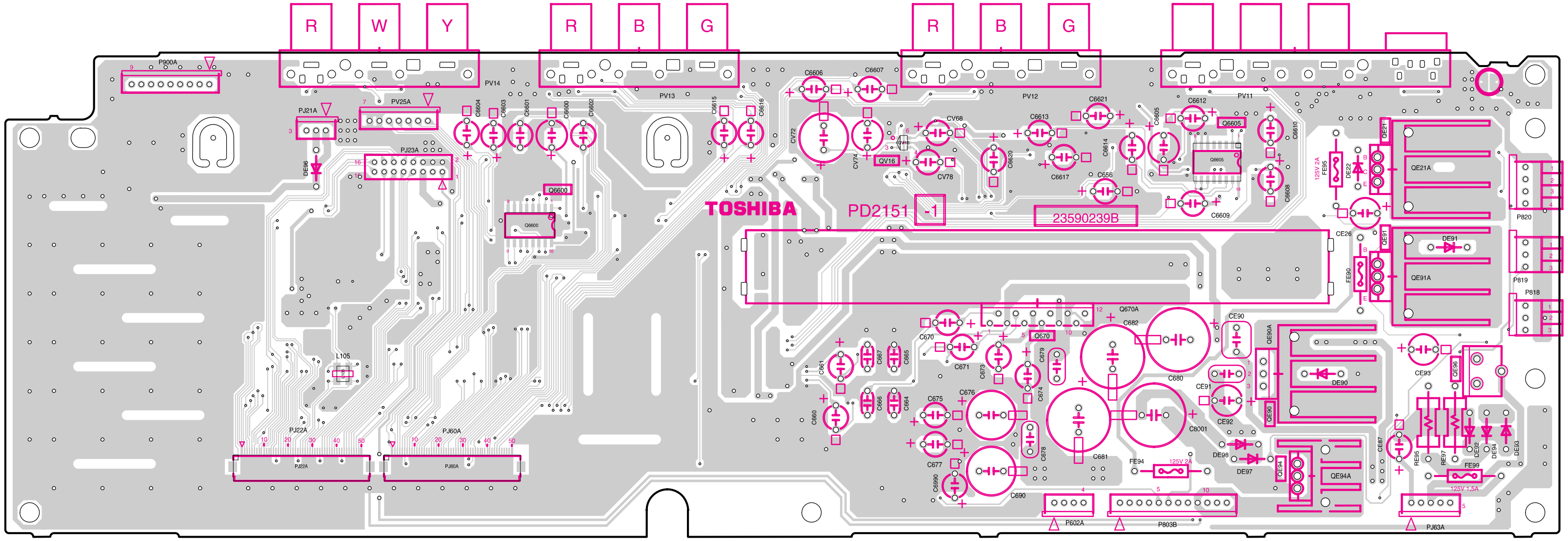
Location No.	Parts No.	Description
P813A	23713937	CONNECTOR, PLUG 4P B4B-PH-K-S(LF)
P813B	23713937	CONNECTOR, PLUG 4P B4B-PH-K-S(LF)
P900A	23713941	CONNECTOR,CONNECT B9B-PH-K-S(LF)
P900B	23713941	CONNECTOR,CONNECT B9B-PH-K-S(LF)
PJ21A	23713934	CONNECTOR, 2MM 3P S WHT B3B-PH-K-S(LF)
PJ22	75000442	CONNECTOR,FPC
PJ22A	23713960	CONNECTOR, 50P FFC 9637S-50Y901
PJ41	23713943	CONNECTOR,CONNECT B11B-PH-K-S(LF)
PJ41A	23713953	CONNECTOR,CONNECT S11B-PH-K-S(LF)
PJ42	23713939	CONNECTOR,CONNECT B6B-PH-K-S(LF)
PJ42A	23713948	CONNECTOR,CONNECT S6B-PH-K-S(LF)
PJ60	75000442	CONNECTOR,FPC
PJ60A	23713960	CONNECTOR, 50P FFC 9637S-50Y901
PJ62	23713910	CONNECTOR,B5P-VH(LF)
PJ62A	23713910	CONNECTOR,B5P-VH(LF)
PJ63A	23713938	CONNECTOR,B5B-PH-K-S(LF)
PJ610	23713819	SOCKET, TWG-P23X-A1
PJ930	23713574	CONNECTOR, 7P TOPTYPE BM07B-SRSS-TBT(LF)
PP01	23845859	HOLDER, WIRE, PVC-C0AT, L=70MM
PP08	23974994	BAND, KESSOKU
PP12	23974994	BAND, KESSOKU
PP22	23748085	WASHER, 10X4.2XT=0.3
PV11	23023424	JACK, PIN RA 1S6P SMK T-5P
PV12	23023425	JACK, PIN RA 5P SMK T-7P
PV13	23023425	JACK, PIN RA 5P SMK T-7P
PV14	23023426	JACK, PIN RA 5P SMK T-7P
PV60	23365833	JACK, PIN 3P, YKC21
PV90	23713710	SOCKET, D-SUB 15P, KRD-8622
Q670B	23717240	SCREW
QE01B	23717240	SCREW
QE21B	23717240	SCREW
QE90B	23717240	SCREW
QE93B	23717240	SCREW
QE94B	23717240	SCREW
SA01	23344505	SWITCH, PUSH 1C1P
SA02	23344505	SWITCH, PUSH 1C1P
SA03	23344505	SWITCH, PUSH 1C1P
SA04	23344505	SWITCH, PUSH 1C1P
SA05	23344505	SWITCH, PUSH 1C1P
SA06	23344505	SWITCH, PUSH 1C1P
SA07	23344505	SWITCH, PUSH 1C1P
SA08	23344505	SWITCH, PUSH 1C1P
⚠ SR81	23146588	RELAY, DLS5D1-O(M) 0.15W
⚠ UF03	23125942	MOTOR,DCFAN12V60MMPODD06R-12TS1002BC2
W661	23351292	SPEAKER, SPK1410AM, 60X120 8-OHM 10W
Z801	23103778	FERRITE CORE, TFE1008
ZA01	23103839	FERRITE CORE, TFE1012
PC BOARD ASSEMBLIES		
✻ U101A	75001456	PC BOARD ASSY, PD2151A1 AV TERM
✻ U101B	75001457	PC BOARD ASSY, PD2151A2 FRONT AV
✻ U101C	75001458	PC BOARD ASSY, PD2151A3 LED
✻ U101D	75001459	PC BOARD ASSY, PD2151A4 KEY
✻ U101E	75001460	PC BOARD ASSY, PD2151A5 PC-IN
✻ U102A	75001461	PC BOARD ASSY, PD2190A1 RF-SW TIF
✻ U103A	75001406	PC BOARD ASSY, PD2131H1 SIGNAL
✻ U104A	75001489	PC BOARD ASSY, PD2231C1 SEINE FOR FPD
✻ U105A	75001408	PC BOARD ASSY, PD2232A1 D-TUNER
✻ U811	75001409	PC BOARD ASSY, PD2237A1 POWER
✻ U812	75001410	PC BOARD ASSY, PD2237A2 AC-IN
TUNER		
⚠ H001	23321536	TUNER, TIF US HOR IIC PH 864M ENG36A36GF

Location No.	Parts No.	Description
ACCESSORIES		
A701A	23015113	CARTON, CASE 32HL95
A702A	23946849	PACKING, TOP
A702B	23946850	PACKING, BOTTOM
A703	23945143	BAG, PROTECTIVE
A709	23946940	PACKING, CENTER PACKING
⚠ K902	23306629	REMOCON HAND UNIT IR, DTVUSA CT-90235
⚠ Y101	23566682	OWNERS MANUAL, E/F/S 32HL95
Y109	23945015	BAG, POLYETHYLENE COVER 250X400
Y170	23845800	HOLDER, WIRE, NYLON66 D6.8
CABINET PARTS		
⚠ A201	23533461	COVER, FRONT BEZEL ASSY 32HL95
A240	23717267	SCREW, BITTB4X16 SBN
⚠ A315	23528412	HOLDER, AC HLD BASE USA/JPN
⚠ A317	23533055	COVER, BRACKET SUPPORT
⚠ A320	23940410	PIECE, FRONT AV ASSY
⚠ A340	23940441	PIECE, PIECE KEY ASSY 32HL95
A365	23717219	SCREW, PP3X8+SW+W SBN
A370	23717267	SCREW, BITTB4X16 SBN
A375	23717214	SCREW, BITTB3X12SBN
⚠ A401	23533430	COVER, BACK COVER
A410	23717219	SCREW, PP3X8+SW+W SBN
A411	23717267	SCREW, BITTB4X16 SBN
⚠ A420	23436865	FOOT, STAND ASSY
A440	23738074	SCREW, PP 5X16 SW+W SBN
⚠ A445	23532988	COVER, BC STAND
⚠ A450	23532989	COVER, BACK TERMINAL BOARD

AV TERMINAL BOARD PD2151A1 (U101A) BOTTOM (FOIL) SIDE

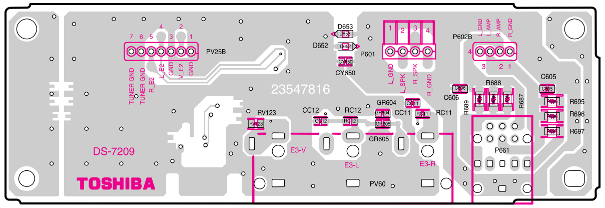

23547816
TOSHIBA
DS-7209
P900A
P820
P819
P818
PJ63A
P803B
P602A
PJ23A
PJ21A
PV25A
PV11
PV12
PV13
PV14

AV TERMINAL BOARD PD2151A1 (U101A) TOP (COMPONENT) SIDE


R
W
Y
R
B
G
R
B
G
TOSHIBA
PD2151 -1
23590239B
P900A
PJ21A
PV25A
PJ23A
PJ22A
PJ60A
PV14
PV13
PV12
PV11
P820
P819
P818
P602A
P803B
PJ63A

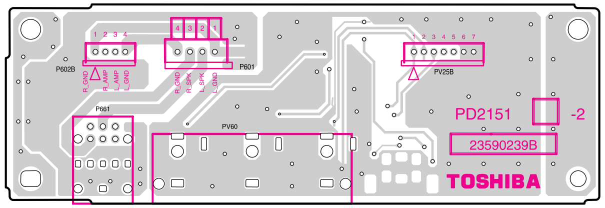
FRONT AV BOARD PD2151A2 (U101B)

BOTTOM (FOIL) SIDE


TOSHIBA
DS-7209
23547816
PV25B
P601
P602B
P661
PV60
D652
D653
CY650
RV123
CC12
RC12
GR604
GR605
CC11
RC11
R688
R689
R687
C605
C606
R695
R696
R697
E3-V
E3-L
E3-R
TUNER GND
R_E2
L_E2
V_E2
L_SPK
R_SPK
R_GND
L_GND
L_AMP
R_AMP

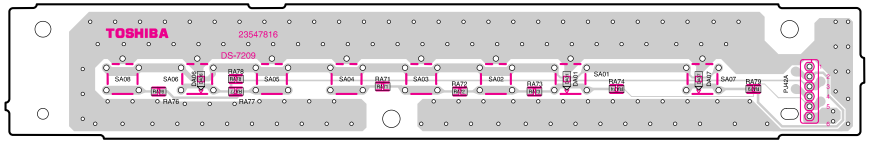
FRONT AV BOARD PD2151A2 (U101B)

TOP (COMPONENT) SIDE


TOSHIBA
PD2151
-2
23590239B
P602B
P601
PV25B
P661
PV60
R_GND
R_AMP
L_AMP
L_GND
R_SPK
L_SPK

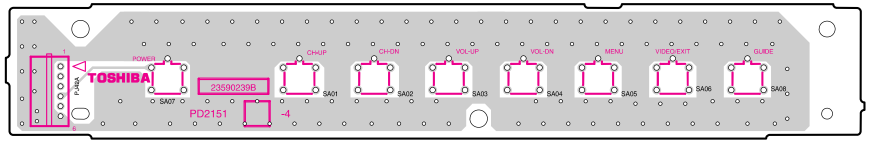
KEY BOARD PD2151A4 (U101D)

BOTTOM (FOIL) SIDE


TOSHIBA
23547816
DS-7209
SA08
SA06
SA05
SA04
SA03
SA02
SA01
SA07
RA76
RA77
RA78
RA71
RA72
RA73
RA74
RA79
DA01
DA07
PJ42A

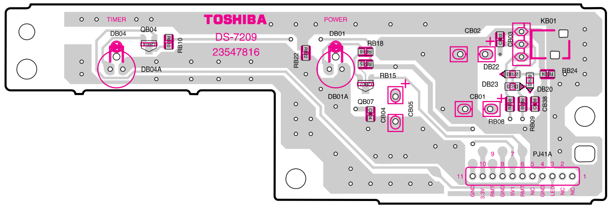
KEY BOARD PD2151A4 (U101D)

TOP (COMPONENT) SIDE


TOSHIBA
PD2151
-4
23590239B
PJ42A
POWER
CH-UP
CH-DN
VOL-UP
VOL-DN
MENU
VIDEO/EXIT
GUIDE
SA07
SA01
SA02
SA03
SA04
SA05
SA06
SA08

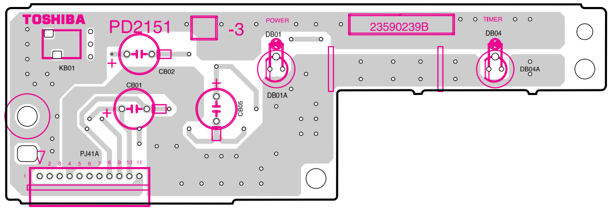
LED BOARD PD2151A3 (U101C)

BOTTOM (FOIL) SIDE


TOSHIBA
DS-7209
23547816
TIMER
POWER
DB04
QB04
RB10
DB04A
RB22
DB01
DB01A
RB18
RB15
QB07
CB04
CB05
CB02
KB01
DB22
DB23
CB01
RB06
RB09
DB20
RB24
PJ41A

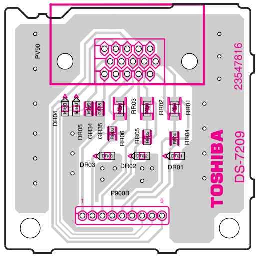
LED BOARD PD2151A3 (U101C)

TOP (COMPONENT) SIDE


TOSHIBA
PD2151
-3
23590239B
POWER
TIMER
KB01
CB02
CB01
CB05
DB01
DB01A
DB04
DB04A
PJ41A

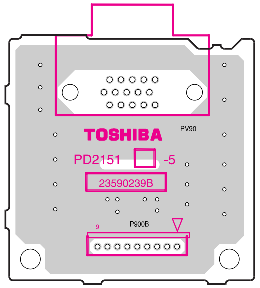
PC-IN BOARD PD2151A5 (U101E)

BOTTOM (FOIL) SIDE


TOSHIBA
DS-7209
23547816
PV90
P900B
DR01
DR02
DR03
DR04
DR05
RR01
RR02
RR03
RR04
RR05
RR06

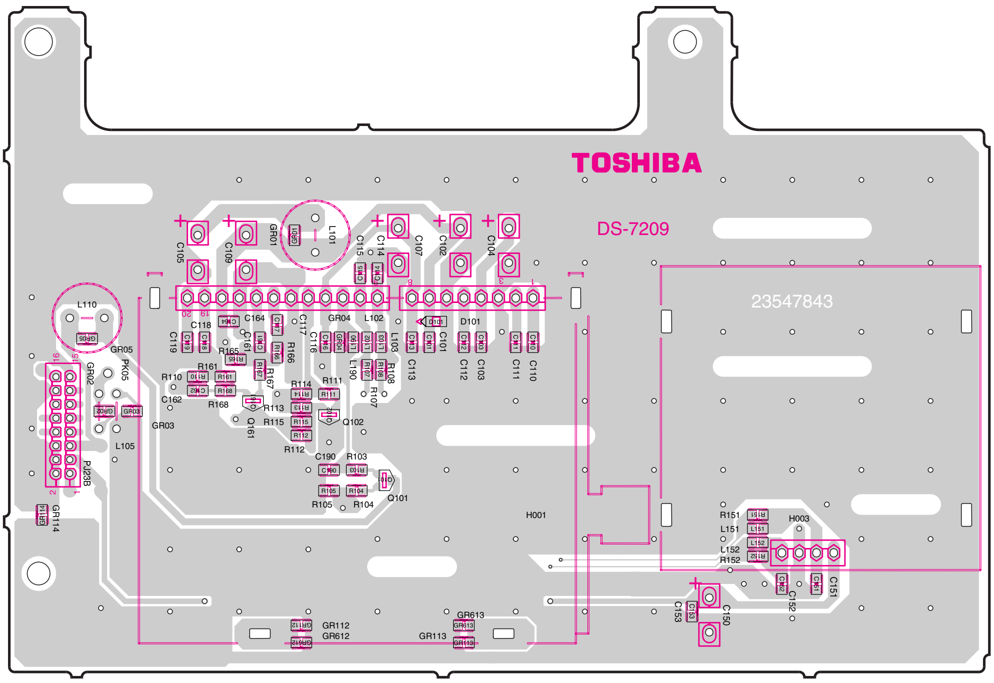
PC-IN BOARD PD2151A5 (U101E)

TOP (COMPONENT) SIDE


TOSHIBA
PD2151
-5
23590239B
PV90
P900B

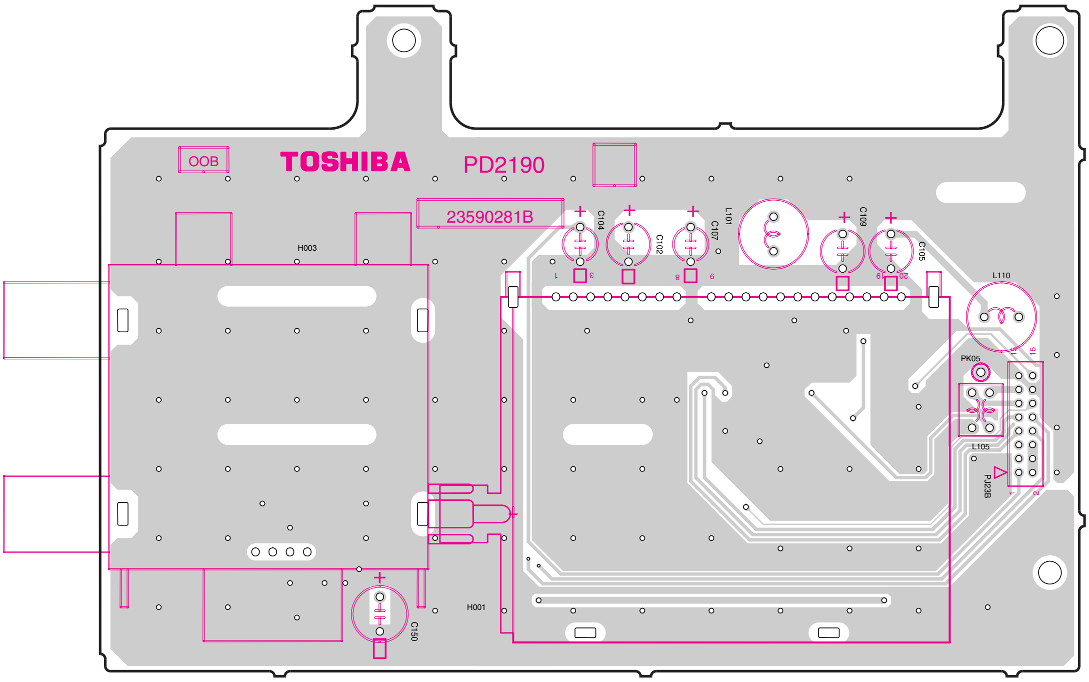
RF-SW TIF BOARD PD2190A1 (U102A)

BOTTOM (FOIL) SIDE


TOSHIBA
DS-7209
23547843
C105
C109
GR01
L101
C115
C114
C107
C102
C104
L110
C118
C164
C117
GR04
L102
D101
C119
C116
C161
R166
L190
L103
C101
C113
C112
C103
C111
C110
R165
R161
R110
R167
R114
R111
R108
R107
C162
R168
R113
R115
Q161
Q102
R112
C190
R103
R105
R104
Q101
GR05
GR02
PK05
GR03
L105
PJ23B
GR114
H001
R151
L151
L152
R152
H003
C153
C150
C152
C151
GR112
GR612
GR613
GR113

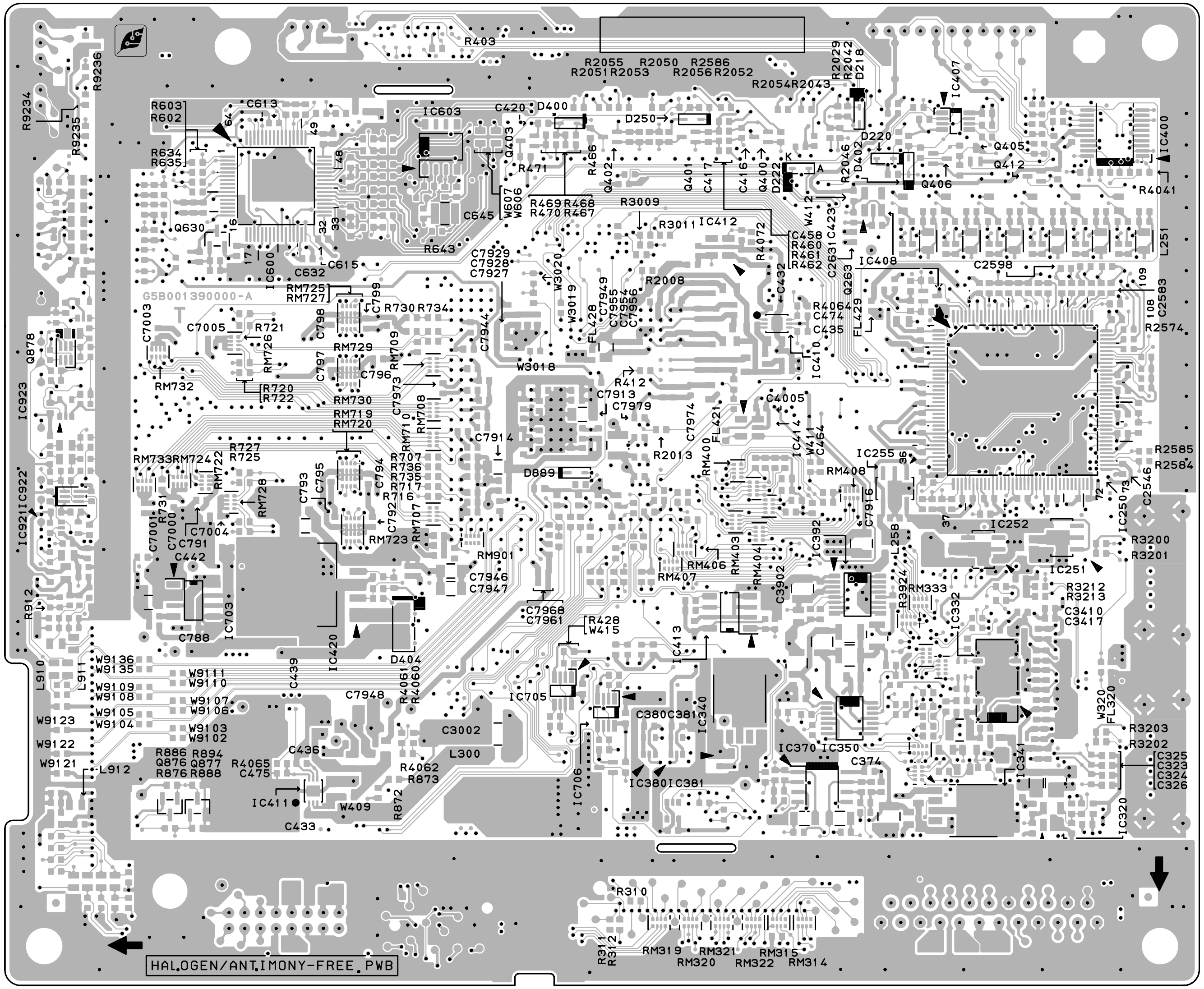
RF-SW TIF BOARD PD2190A1 (U102A)

TOP (COMPONENT) SIDE


OOB
TOSHIBA
PD2190
23590281B
H003
C104
C102
C107
L101
C109
C105
L110
PK05
L105
PJ23B
H001
C150

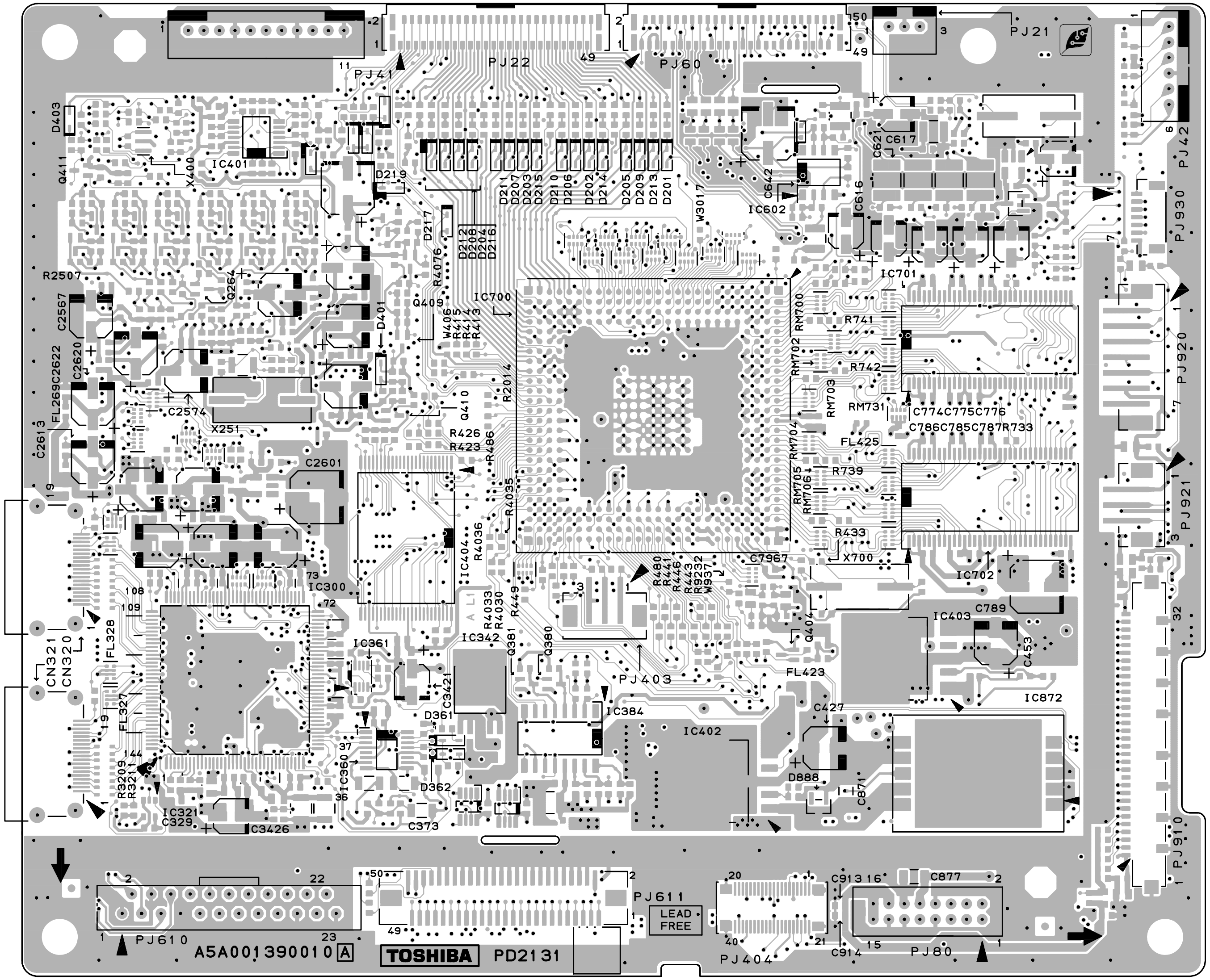
SIGNAL BOARD PD2131H1 (U103A)

BOTTOM (FOIL) SIDE


R403
R2055 R2050 R2586
R2051 R2053 R2056 R2052
R2054 R2043
R2029
R2042
D218
IC407
IC400
R9234
R9236
R9235
R603
R602
C613
64
49
48
IC603
C420
D400
D250
R634
R635
Q403
R471
R466
Q402
Q401
C417
C416
Q400
D222
K
A
R2046
D402
D220
Q405
Q412
Q406
R4041
Q630
16
32
33
W607
W606
R469 R468
R470 R467
R3009
R3011 IC412
R4072
W412
C423
C458
R460
R461
R462
C2631
Q263
IC408
C2598
L251
109
108
C2583
R2574
17
IC600
C615
C632
R643
C645
C7929
C7928
C7927
W3020
W3019
FL428
C7949
C7954
C7955
C7956
R2008
C432
R4064
C474
C435
FL429
G5B001390000-A
RM725
RM727
C799
R730 R734
C7003
C7005
R721
RM726
C798
RM729
RM709
C7944
W3018
IC410
C797
C796
C7973
RM732
R720
R722
RM730
RM719
RM720
RM710
RM708
R412
C7913
C7979
C4005
C7974
FL421
RM400
C414
W411
C464
R2013
IC255
36
RM408
R2585
R2584
IC923
Q878
C7914
D889
RM733 RM724
R727
R725
RM722
C795
C794
R707
R736
R735
R717
R716
C792
RM707
RM723
RM728
C793
IC921 IC922
R731
C7001
C7000
C791
C7004
C442
IC392
C7916
L258
37
IC252
72
73
IC250
C2546
R3200
R3201
RM901
C7946
C7947
RM406
RM407
RM403
RM404
C3902
R3924
RM333
IC332
IC251
R3212
R3213
C3410
C3417
R912
C7968
C7961
R428
W415
C788
IC703
IC420
D404
IC413
L910
W9136
W9135
L911
W9111
W9110
W9109
W9108
C439
C7948
R4061
R4060
IC705
C380 C381
IC340
W320
FL320
W9123
W9105
W9104
W9107
W9106
W9103
W9102
C3002
IC370 IC350
C374
IC341
R3203
R3202
W9122
W9121
R886 R894
Q876 Q877
R876 R888
R4065
C475
C436
L912
L300
R4062
R873
IC706
IC380 IC381
C325
C323
C324
C326
IC411
W409
R872
C433
IC320
R310
R311
R312
RM319
RM320
RM321
RM322
RM315
RM314
HALOGEN/ANTIMONY-FREE PWB

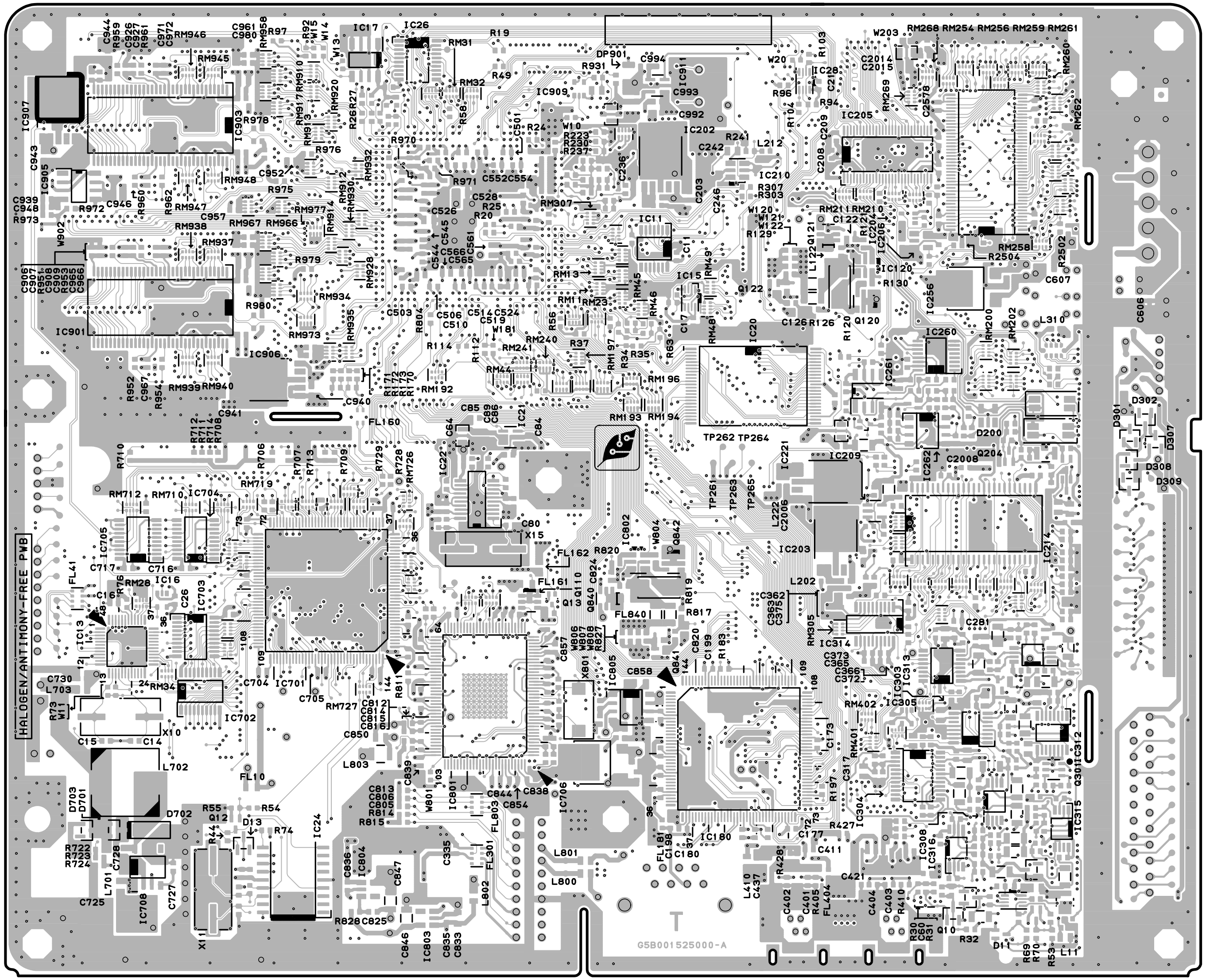
SIGNAL BOARD PD2131H1 (U103A)

TOP (COMPONENT) SIDE


PJ41
PJ22
PJ60
PJ21
PJ42
PJ930
PJ920
PJ921
PJ910
PJ80
PJ404
PJ611
LEAD FREE
PJ610
PJ403
A5A001390010 A
TOSHIBA
PD2131
IC401
X400
D403
Q411
D219
D217
D211
D207
D203
D215
D210
D206
D202
D214
D205
D209
D213
D201
D212
D208
D204
D216
W3017
C642
IC602
C616
C621
C617
IC701
IC700
R2507
C2567
Q264
Q409
R4076
W406
R414
R413
D401
C2620
FL269C2622
C2574
X251
Q410
R2014
C2613
C2601
R426
R423
R486
R4035
R4036
IC404
IC300
FL328
CN321
CN320
FL327
R3209
R3211
IC321
C329
C3426
IC361
C3421
IC342
R4033
R4030
R449
Q381
Q380
D361
IC360
D362
C373
IC384
IC402
R480
R441
R446
R443
R9232
W937
C7967
RM700
RM702
RM703
RM704
RM705
RM706
RM731
R741
R742
R739
R433
X700
FL425
C774C775C776
C786C785C787R733
IC702
IC403
C789
C453
Q404
FL423
IC872
C427
D888
C871
C913
C914
C877

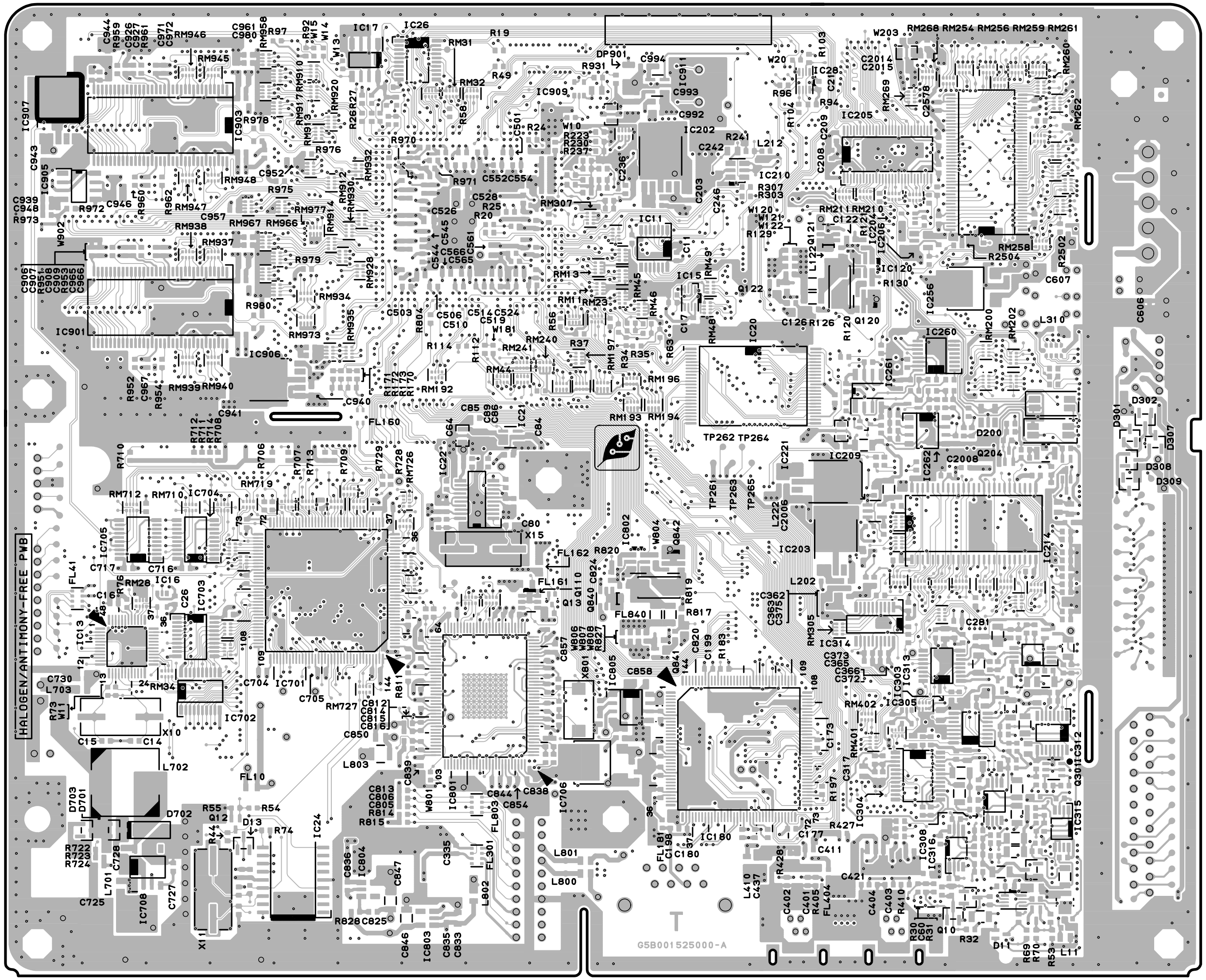
SEINE FOR FPD BOARD PD2231C1 (U104A)

BOTTOM (FOIL) SIDE


HALOGEN/ANTIMONY-FREE PWB
G5B001525000-A
IC907
IC903
IC905
IC901
IC906
IC17
IC26
IC909
IC911
IC202
IC210
IC28
IC205
IC11
IC15
IC20
IC120
IC256
IC260
IC261
IC221
IC209
IC252
IC203
IC214
IC314
IC313
IC303
IC305
IC304
IC308
IC316
IC315
Q301
IC312
IC180
IC706
IC801
IC802
IC805
IC804
IC803
IC24
IC702
IC701
IC704
IC705
IC703
IC16
IC13
IC708
IC22
IC21
X1
X10
X15
X801
DP901
TP262 TP264
TP261
TP263
TP265
FL160
FL162
FL161
FL840
FL10
FL41
FL181
FL301
FL803
FL404
L202
L212
L222
L310
L410
L701
L702
L703
L800
L801
L802
L803
D200
D301
D302
D307
D308
D309
D701
D702
D703
D13
D11
Q10
Q12
Q13
Q110
Q120
Q121
Q122
Q204
Q840
Q841
Q842
C606
C607
W203
RM268 RM254 RM256 RM259 RM261
RM260
RM262
RM258
R2502
R2504
RM200
RM202
R19
RM31
RM32
R49
R58
RM945
RM946
RM948
RM947
RM938
RM937
RM934
RM935
RM973
RM939 RM940
R710
RM712
RM710
RM719
R706
R707
R713
R709
R729
R728
RM726
R811
RM727
R820
R817
R819
R183
RM305
RM401
RM402
R427
R428
R32
R53
R69
R70
R30
R410
R405
R54
R55
R44
R74
R722
R723
R724
R815
R814
R828
C825
C846
C835
C833
C847
C335
C836
C839
C813
C806
C805
C844
C838
C854
C850
C857
C858
C820
C199
C173
C177
C411
C421
C437
C402
C401
C404
C403
C198
C180
37
36
72
73
108
109
144
1
12
13
24
64
103

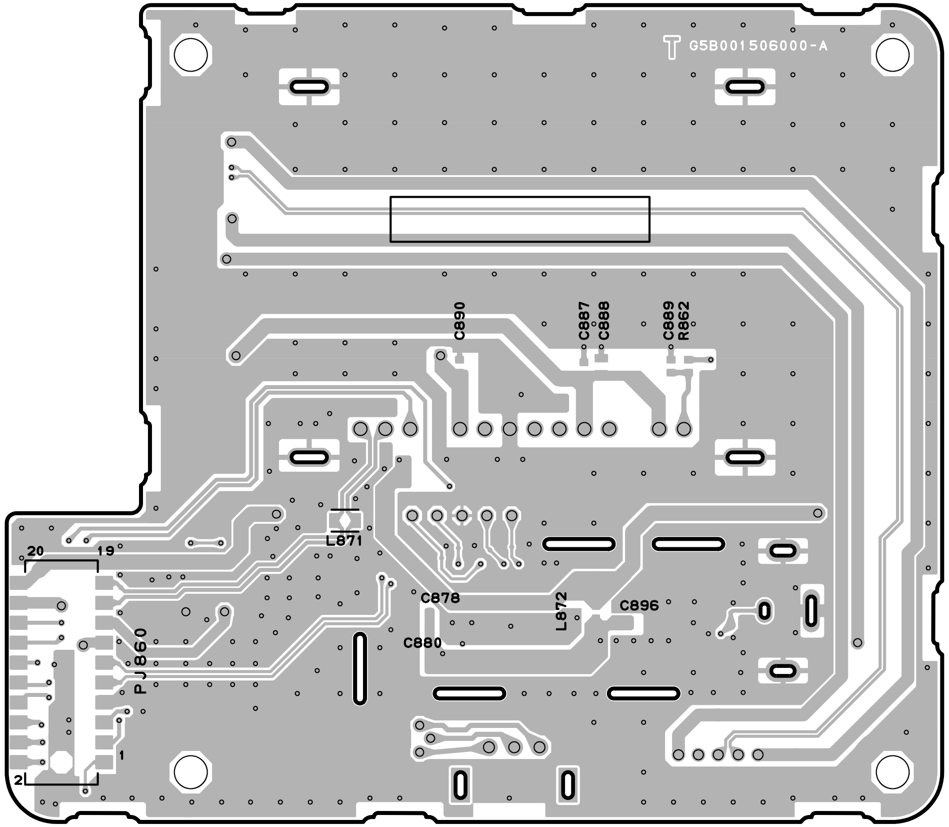
SEINE FOR FPD BOARD PD2231C1 (U104A)

TOP (COMPONENT) SIDE


HALOGEN/ANTIMONY-FREE PWB
G5B001525000-A

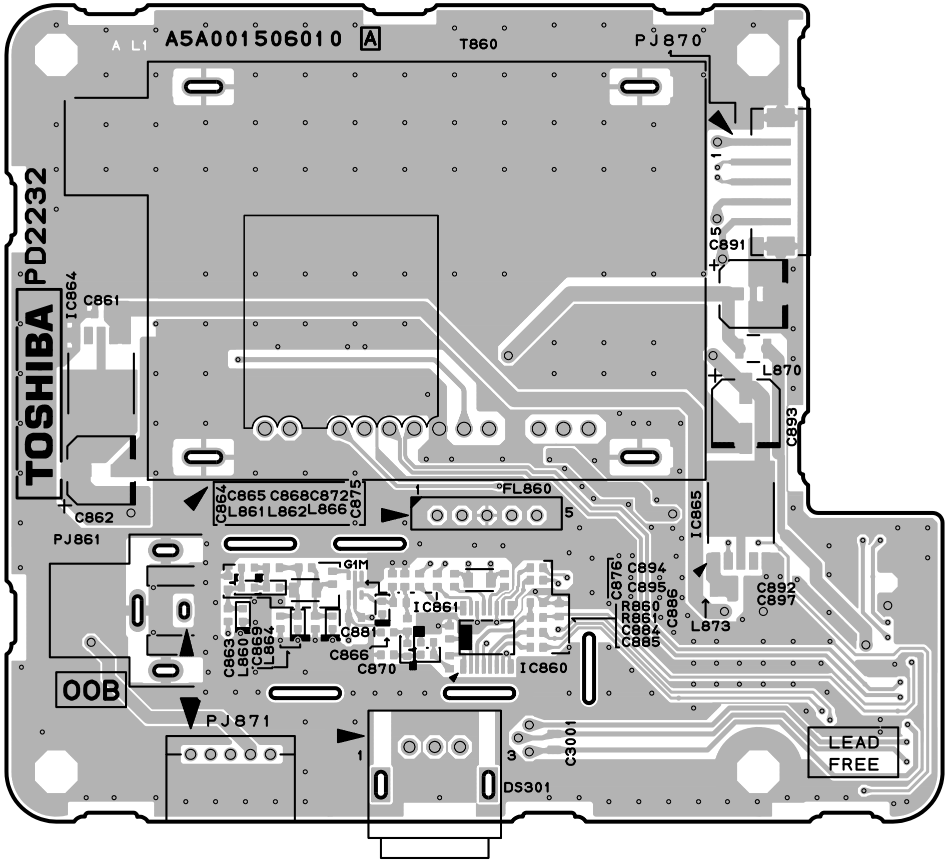
D-TUNER BOARD PD2232A1 (U105A)

BOTTOM (FOIL) SIDE


G5B001506000-A
C890
C887
C888
C889
R862
L871
20
19
2
1
PJ860
C878
L872
C896
C880

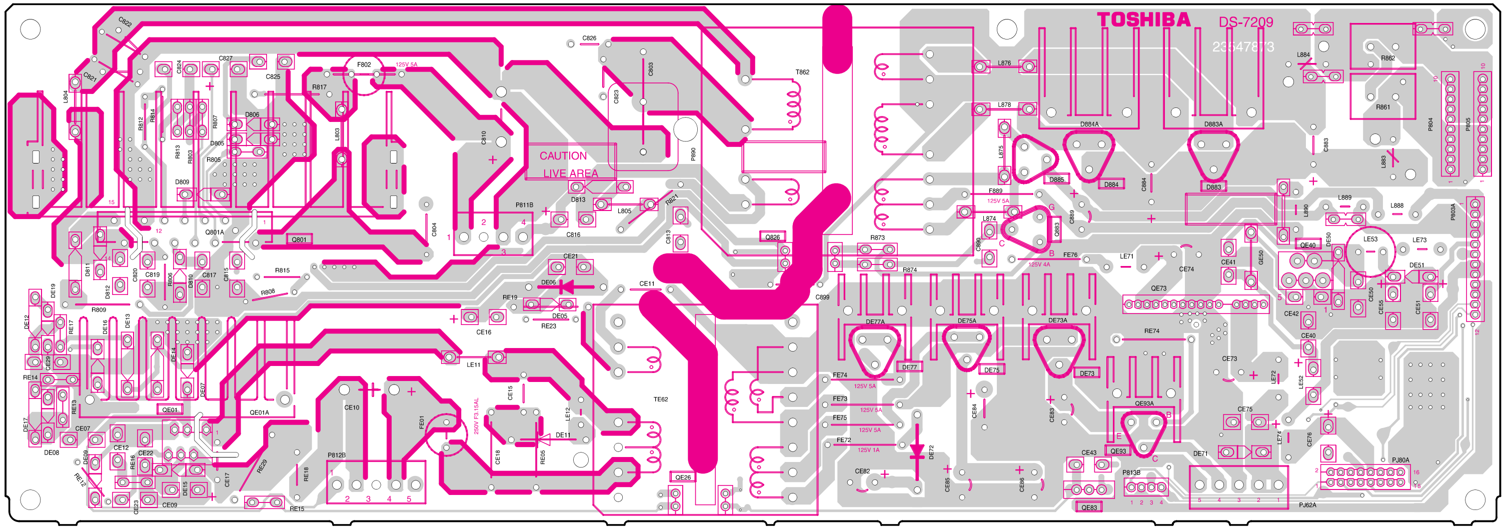
D-TUNER BOARD PD2232A1 (U105A)

TOP (COMPONENT) SIDE


A L1
A5A001506010
A
T860
PJ870
1
5
C891
L870
C893
IC864
C861
PD2232
TOSHIBA
C862
PJ861
C864
C865
C868
C872
C875
L861
L862
L866
FL860
1
5
IC865
G1M
IC861
C876
C894
C895
C886
R860
R861
C884
C885
C892
C897
L873
C863
L860
C869
L864
C881
C866
C870
IC860
OOB
PJ871
1
3
C3001
DS301
LEAD
FREE

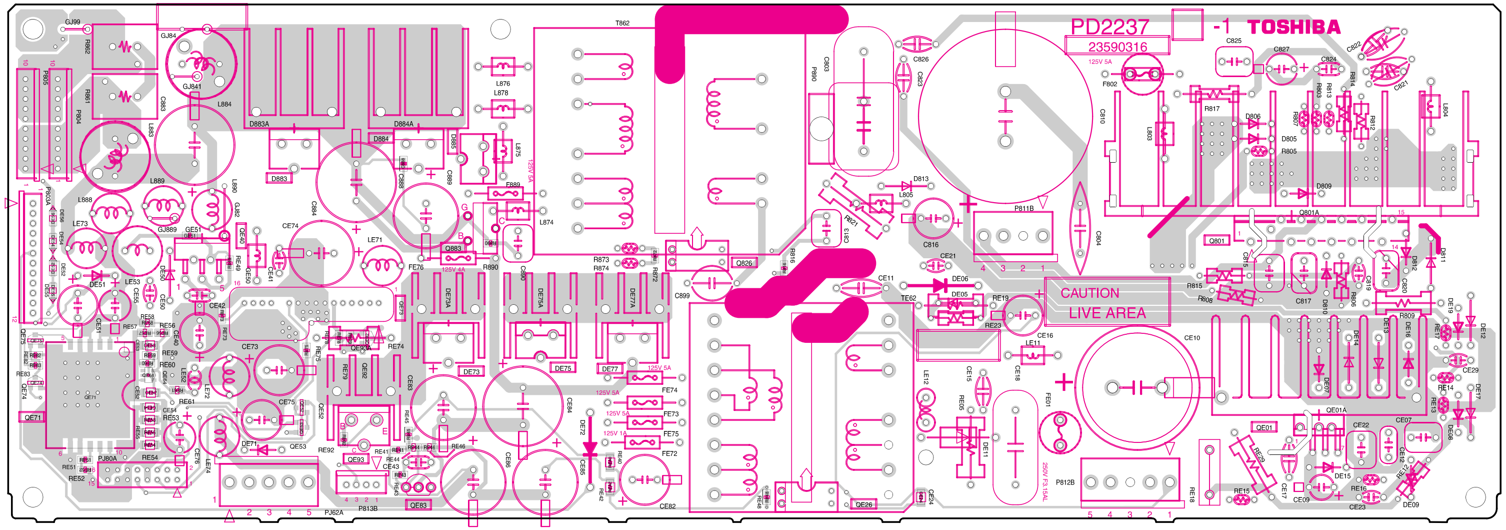
POWER BOARD PD2237A1 (U811)

BOTTOM (FOIL) SIDE


TOSHIBA
DS-7209
23547813
CAUTION
LIVE AREA
125V 5A
125V 4A
125V 1A
250V F3.15AL

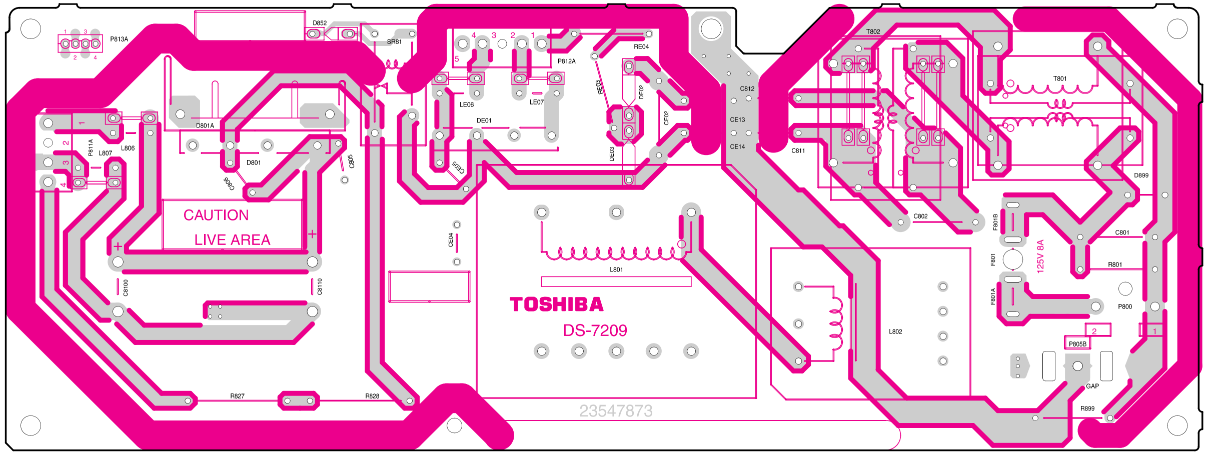
POWER BOARD PD2237A1 (U811)

TOP (COMPONENT) SIDE


PD2237
-1
TOSHIBA
23590316
CAUTION
LIVE AREA
125V 5A
125V 4A
125V 1A
250V F3.15AL

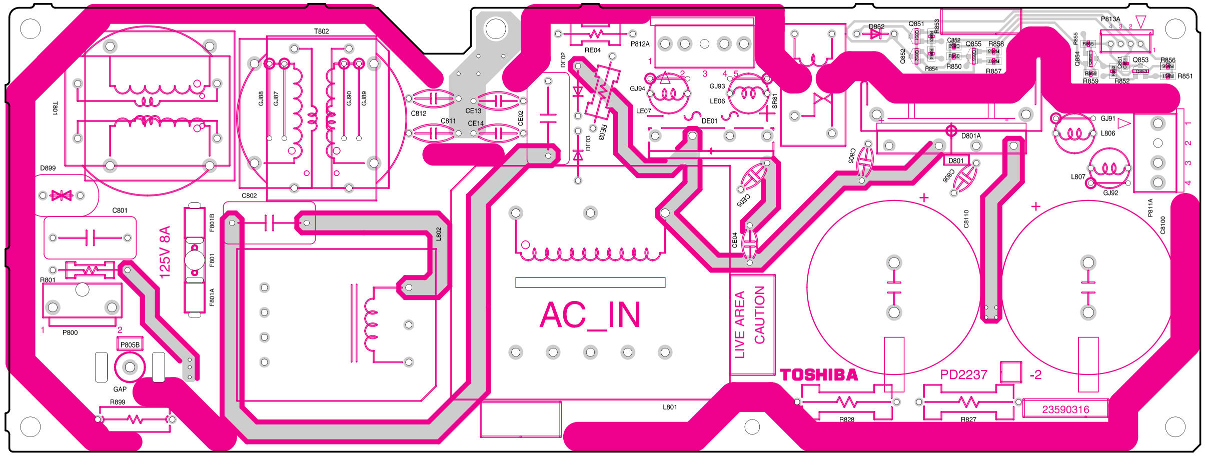
AC-IN BOARD PD2237A2 (U812)

BOTTOM (FOIL) SIDE


P813A
D852
SR81
P812A
RE04
LE06
LE07
DE01
DE02
DE03
CE02
CE05
CE04
C812
CE13
CE14
C811
T802
T801
D801A
D801
C806
C805
CAUTION
LIVE AREA
C8100
C8110
P811A
L807
L806
L801
TOSHIBA
DS-7209
L802
C802
F801B
F801
F801A
125V 8A
C801
R801
P800
P805B
GAP
R899
D899
R827
R828
23547873

AC-IN BOARD PD2237A2 (U812)

TOP (COMPONENT) SIDE


T802
T801
GJ88
GJ87
GJ90
GJ89
C812
C811
CE13
CE14
CE02
DE02
DE03
RE03
RE04
P812A
GJ94
GJ93
LE07
LE06
DE01
SR81
D852
Q851
Q852
Q855
Q853
Q854
R850
R851
R852
R856
R857
R858
R859
P813A
GJ91
GJ92
L806
L807
D801A
D801
C806
C805
CE05
CE04
C8110
C8100
P811A
D899
C801
R801
P800
P805B
GAP
R899
125V 8A
F801B
F801
F801A
C802
L802
AC_IN
L801
LIVE AREA
CAUTION
TOSHIBA
PD2237
-2
R828
R827
23590316

SCHEMATIC DIAGRAM

MODEL : 32HL95

WARNING : BEFORE SERVICING THIS CHASSIS, READ THE "SERVICE SAFETY PRECAUTIONS" ON PAGE 3 OF THIS MANUAL.

CAUTION : The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the SERVICE SAFETY PRECAUTIONS on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt
   1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt
   10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   $\overset{+}{-|\,|-}$ Electolytic capacitor $\overset{Ⓜ}{-|\,|-}$ Mylar capacitor
3. The parts indicated with " ⚠ " have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

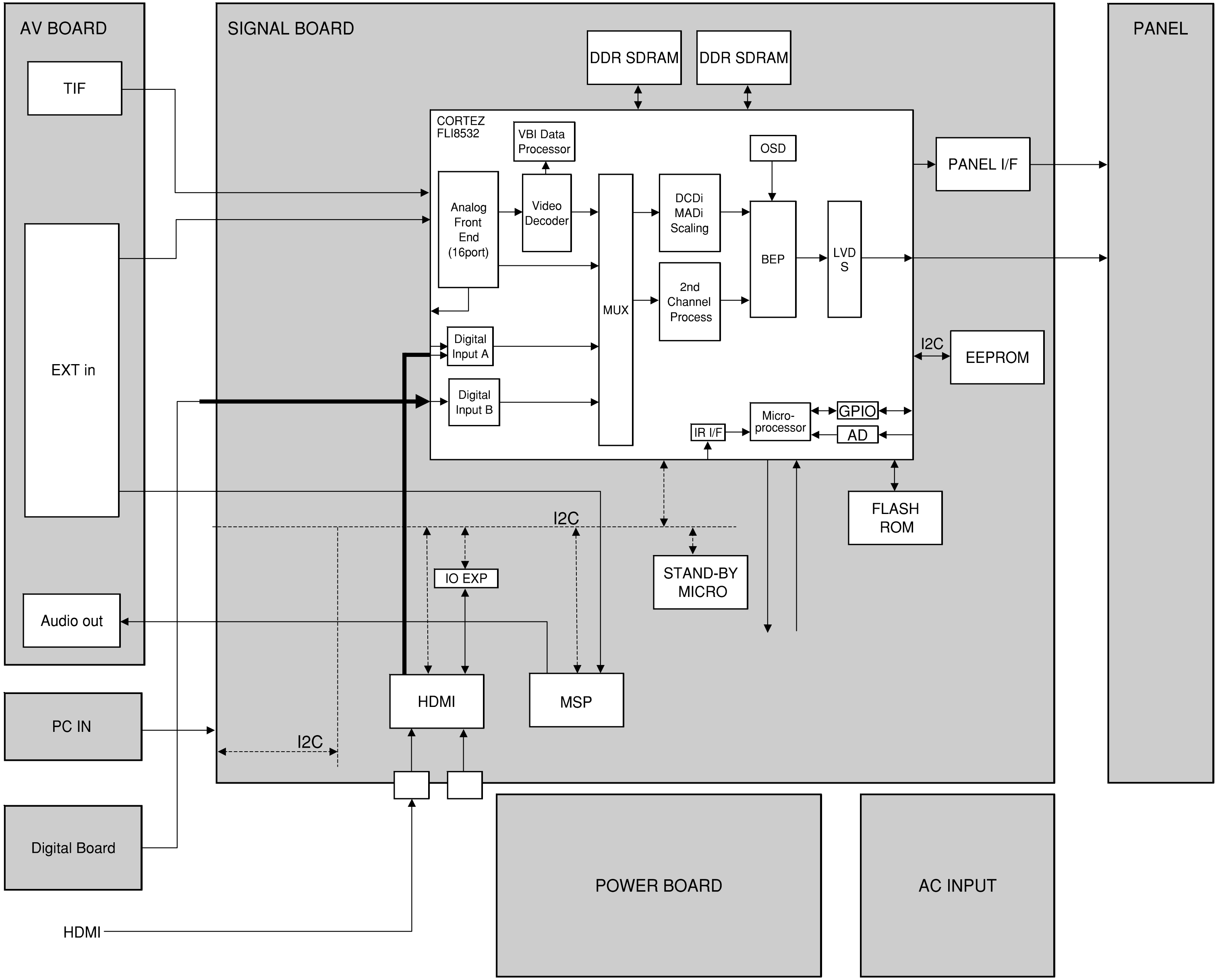
■ SCHEMATIC DIAGRAM STRUCTURE:

- CONNECTOR 1/122
- AV_JACK 2/122
- AUDIO_OUT 3/122
- REGULATOR 4/122
- FRONT-AV 5/122
- LED_RMT 6/122
- KEY 7/122
- PC-IN BOARD 8/122
- CONNECTOR(POWER_BOARD) 9/122
- MAIN_POWER(POWER_BOARD) 10/122
- SUB_POWER(POWER_BOARD) 11/122
- AC-INPUT 12/122
- RF-SW & TIF 13/122
- SIGNAL
  - ANALOG IN [SHEET-200] 14/122
  - D IN A [SHEET-300] 15/122
  - D IN B [SHEET-301] 16/122
  - HDMI (Link, I2C) [SHEET-302] 17/122
  - HDMI Rx#2 (Video/Audio) [SHEET-303] 18/122
  - HDMI Rx#3 (PWR,Audio) [SHEET-304] 19/122
  - HDMI AUDIO PLL [SHEET-305] 20/122
  - HDMI AUDIO DAC [SHEET-306] 21/122
  - HDMI AUDIO OUT [SHEET-307] 22/122
  - HDMI CONTROLLER [SHEET-308] 23/122
  - EEPROM1 [SHEET-309] 24/122
  - EEPROM2 [SHEET-310] 25/122
  - MICRO I/O [SHEET-400] 26/122
  - OCM MEMORY I/F [SHEET-401] 27/122
  - FLASH MEMORY [SHEET-402] 28/122
  - SYNC SEPA [SHEET-403] 29/122
  - E2P OTHER [SHEET-404] 30/122
  - STD-BY MICOR [SHEET-405] 31/122
  - CORTEZ REG 1 [SHEET-406] 32/122
  - CORTEZ REG 2 [SHEET-407] 33/122
  - CORTEZ REG 3 [SHEET-408] 34/122
  - BOOT CONFIG [SHEET-409] 35/122
  - SERVICE CONNECTOR [SHEET-410] 36/122
  - I2C Switch [SHEET-411] 37/122
  - AUDIO
    - (1/2) [SHEET-600] 38/122
    - (2/2) [SHEET-601] 39/122
  - CORTEZ 1 [SHEET-700] 40/122
  - CORTEZ 2 [SHEET-701] 41/122
  - DDR I/F [SHEET-702] 42/122
  - DDR SDRAM [SHEET-703] 43/122
  - DDR TERMINATION [SHEET-704] 44/122
  - DCDC CONV. [SHEET-802] 45/122
  - LVDS OUT [SHEET-900] 46/122
  - LVDS OUT(SHARP LCD) [SHEET-901] 47/122
  - Power Connector and Dimming [SHEET-902] 48/122
  - LVDS Power and Others [SHEET-903] 49/122
- SEINE FOR FPD
  - SEINE RESET/CLOCK/TIMER/IRC [SHEET-1] 50/122
  - SEINE SLOW BUS [SHEET-2] 51/122
  - SLOW BUS ADDRESS REGISTER [SHEET3] 52/122
  - SEINE IIC/UART [SHEET-4] 53/122
  - SEINE PIO [SHEET-5] 54/122
  - ROM/FLASH [SHEET-6] 55/122

SEINE FOR FPD
- M-SYSTEM(NANDFLASHROM) [SHEET-7] 56/122
- IR [SHEET-8] 57/122
- GLINK IR-OUT [SHEET-9] 58/122
- CLOCK GEN. [SHEET-10] 59/122
- USB I/F [SHEET-11] 60/122
- UART0 INTERFACE [SHEET-12] 61/122
- EJTAG CONNECTOR [SHEET-13] 62/122
- SEINE PCI BUS [SHEET-14] 63/122
- MPU POWER [SHEET-16] 64/122
- Ext UART [SHEET-17] 65/122
- MACPHYTER 1
  - (1/2) [SHEET-20] 66/122
  - (2/2) [SHEET-21] 67/122
- RJ45 [SHEET-22] 68/122
- TUENR CONNECTOR [SHEET-100] 69/122
- T313(Signal) [SHEET-101] 70/122
- 1.1VRegulator [SHEET-102] 71/122
- T313(Power) [SHEET-103] 72/122
- Seine TS I/F [SHEET-150] 73/122
- SEINE CAPTURE IN [SHEET-200] 74/122
- VIDEO POWER [SHEET-210] 75/122
- SEINE DIGITAL OUT [SHEET-220] 76/122
- SEINE-BEP IF [SHEET-221] 77/122
- SEINE DAC OUT [SHEET-225] 78/122
- DOWN CON OUT DRIVER [SHEET-226] 79/122
- HD OUT LPF [SHEET-227] 80/122
- MACRO VCD
  - (1/2) [SHEET-240] 81/122
  - (2/2) [SHEET-241] 82/122
- VIDEO LPF [SHEET-242] 83/122
- MPEG Enc. (CLK, SDRAM) [SHEET-250] 84/122
- MPEG Enc. (AV I/F) [SHEET-251] 85/122
- MPEG Enc. (STREAM I/F) [SHEET-252] 86/122
- MPEG Enc. (POWER) [SHEET-253] 87/122
- LPF, Slicer [SHEET-260] 88/122
- H/V Sync Sep. [SHEET-261] 89/122
- AUDIO POWER [SHEET-300] 90/122
- SEINE AUDIO I/F [SHEET-301] 91/122
- AUDIO DAC [SHEET-302] 92/122
- AUDIO PLL/DAC [SHEET-303] 93/122
- AUDIO VTR OUT [SHEET-304] 94/122
- AUDIO SP OUT [SHEET-305] 95/122
- MPEG2 AUDIO TV IN [SHEET-306] 96/122
- MPEG2 AUDIO ADC [SHEET-307] 97/122
- MPEG2 AUDIO PLL [SHEET-308] 98/122
- AUDIO DAC 0.1CH [SHEET-309] 99/122
- AUDIO VTR OUT [SHEET-310] .. 100/122
- MB86619 [SHEET-400] .. 101/122
- MB86619 (POWER) [SHEET-401] .. 102/122
- CPLD XILINX [SHEET-700] .. 103/122
- SLOWBUS [SHEET-701] .. 104/122
- PODVPP [SHEET-702] .. 105/122
- POD I/F [SHEET-703] .. 106/122
- PODVCC [SHEET-704] .. 107/122
- DDR SDRAM I/F [SHEET-901] .. 108/122

SEINE FOR FPD	DDR 1	[SHEET-902] .. 109/122
	DDR 2	[SHEET-903] .. 110/122
	DDR 3	[SHEET-904] .. 111/122
	DDR 4	[SHEET-905] .. 112/122
	DDR POWER	[SHEET-906] .. 113/122
	TERMINATOR	[SHEET-907] .. 113/122
	VCXO	[SHEET-941] .. 115/122
	SEINE VDD/VSS	[SHEET-950] .. 116/122
	SIGNAL CONNECTOR	[SHEET-960] .. 117/122
	POWER CONNECTOR	[SHEET-961] .. 118/122
	Signal filter	[SHEET-964] .. 119/122
D-TUNER	TUNER CONNECTOR(TUNER)	[SHEET-104] .. 120/122
	OOB FDC	[SHEET-105] .. 121/122
	FAT TUNER	[SHEET-106] .. 122/122

CIRCUIT BLOCK DIAGRAM


AV BOARD
TIF
EXT in
Audio out
PC IN
Digital Board
HDMI
SIGNAL BOARD
DDR SDRAM
DDR SDRAM
CORTEZ
FLI8532
VBI Data Processor
Analog Front End (16port)
Video Decoder
MUX
DCDi MADi Scaling
2nd Channel Process
OSD
BEP
LVD S
Digital Input A
Digital Input B
IR I/F
Micro-processor
GPIO
AD
PANEL I/F
I2C
EEPROM
FLASH ROM
I2C
IO EXP
STAND-BY MICRO
HDMI
MSP
I2C
PANEL
POWER BOARD
AC INPUT

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN

TOSHIBA

FILE NO. 020-200511

CIRCUIT DIAGRAMS

LCD Color Television

32HL95

© TOSHIBA CORPORATION 2005

DOCUMENT CREATED IN JAPAN, July, 2005

SCHEMATIC DIAGRAM

MODEL : 32HL95

WARNING : BEFORE SERVICING THIS CHASSIS, READ THE "SERVICE SAFETY PRECAUTIONS" ON THE MANUAL FOR THIS MODEL.

CAUTION : The international hazard symbols "⚠" in the schematic diagram and the parts list designate components which have special characteristics important for safety and should be replaced only with types identical to those in the original circuit or specified in the parts list. The mounting position of replacements is to be identical with originals. Before replacing any of these components, read carefully the SERVICE SAFETY PRECAUTIONS on the MANUAL for this model. Do not degrade the safety of the receiver through improper servicing.

NOTE:

1. RESISTOR Resistance is shown in ohm [K = 1.000, M = 1.000.000]. All resistors are 1/6W and 5% tolerance carbon resistor, unless otherwise noted as the following marks.
   1/2R = Metal or Metal oxide of 1/2 watt 1/2S = Carbon compsistion of 1/2 watt
   1RF = Fuse resistor of 1 watt 10W = Cement of 10 watt
   K = ±10% G = ±2% F = ±1%
2. CAPACITOR Unless otherwise noted in schematic, all capacitor values less than 1 are expressed in μF, and the values more than 1 in pF.
   All capacitors are ceramic 50V, unless otherwise noted as the following marks.
   —⁺| |— Electolytic capacitor —Ⓜ| |— Mylar capacitor
3. The parts indicated with " ⚠ " have special characteristics, and should be replaced with identical parts only.
4. Voltages read with DIGITAL MULTI-METER from point indicated to chassing ground, using a color bar signal with all controls at normal, line voltage 220 volts.
5. Waveforms are taken receiving color bar signal with enough sensitivity.
6. Voltage reading shown are nominal values and may vary ±20% except H.V.

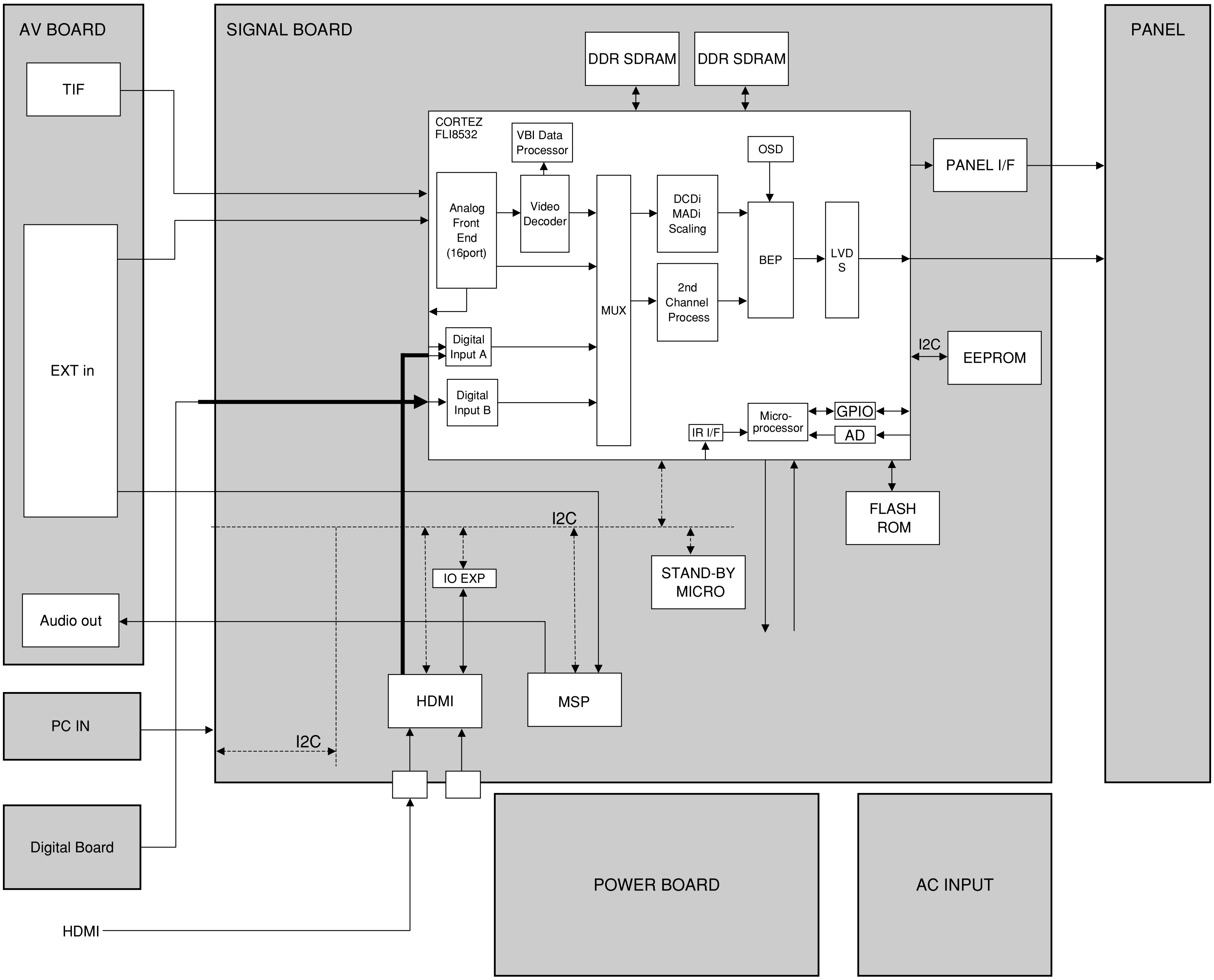
■ SCHEMATIC DIAGRAM STRUCTURE:

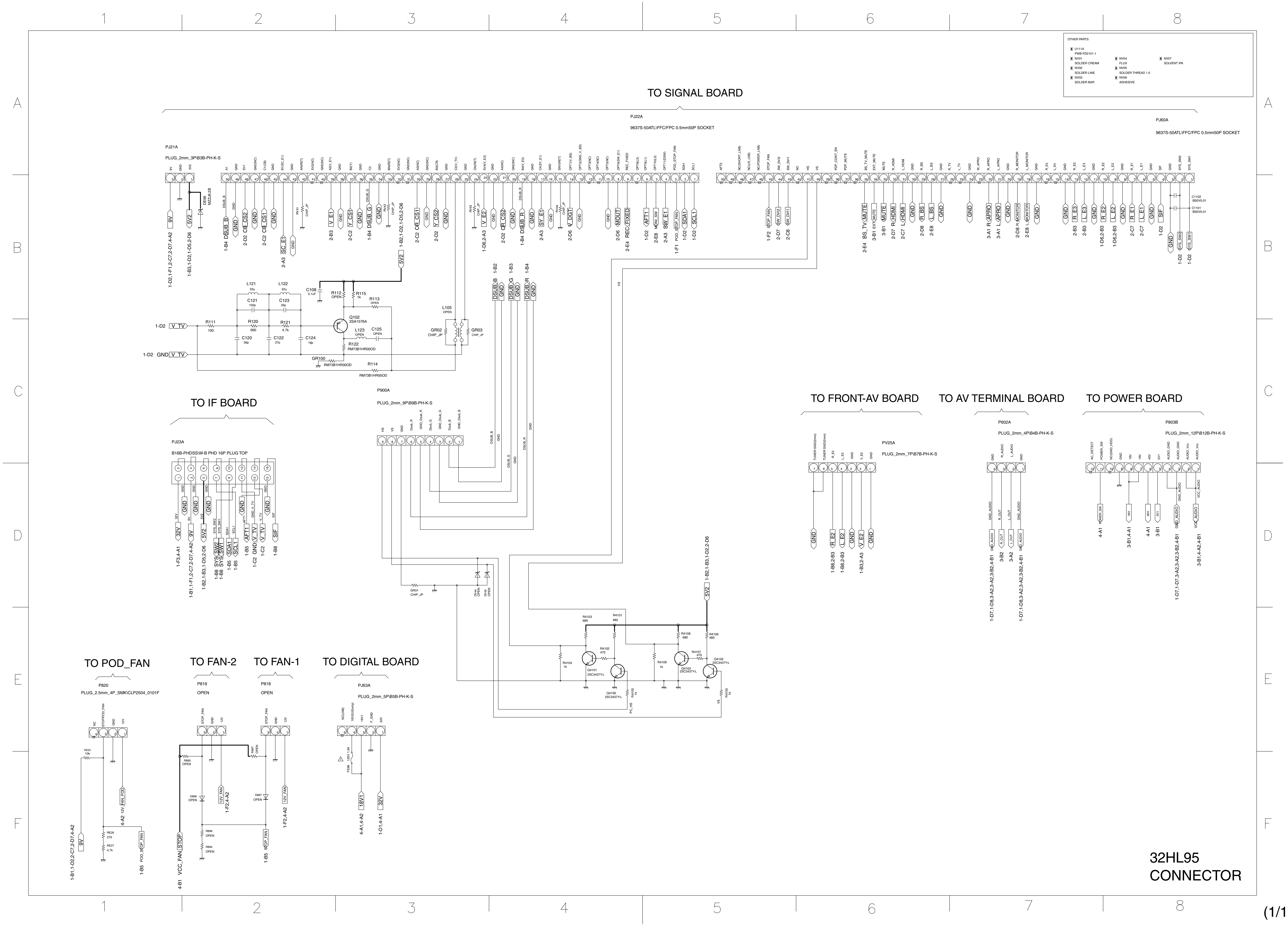
- CONNECTOR 1/122
- AV_JACK 2/122
- AUDIO_OUT 3/122
- REGULATOR 4/122
- FRONT-AV 5/122
- LED_RMT 6/122
- KEY 7/122
- PC-IN BOARD 8/122
- CONNECTOR(POWER_BOARD) 9/122
- MAIN_POWER(POWER_BOARD) 10/122
- SUB_POWER(POWER_BOARD) 11/122
- AC-INPUT 12/122
- RF-SW & TIF 13/122
- SIGNAL
  - ANALOG IN [SHEET-200] 14/122
  - D IN A [SHEET-300] 15/122
  - D IN B [SHEET-301] 16/122
  - HDMI (Link, I2C) [SHEET-302] 17/122
  - HDMI Rx#2 (Video/Audio) [SHEET-303] 18/122
  - HDMI Rx#3 (PWR,Audio) [SHEET-304] 19/122
  - HDMI AUDIO PLL [SHEET-305] 20/122
  - HDMI AUDIO DAC [SHEET-306] 21/122
  - HDMI AUDIO OUT [SHEET-307] 22/122
  - HDMI CONTROLLER [SHEET-308] 23/122
  - EEPROM1 [SHEET-309] 24/122
  - EEPROM2 [SHEET-310] 25/122
  - MICRO I/O [SHEET-400] 26/122
  - OCM MEMORY I/F [SHEET-401] 27/122
  - FLASH MEMORY [SHEET-402] 28/122
  - SYNC SEPA [SHEET-403] 29/122
  - E2P OTHER [SHEET-404] 30/122
  - STD-BY MICOR [SHEET-405] 31/122
  - CORTEZ REG 1 [SHEET-406] 32/122
  - CORTEZ REG 2 [SHEET-407] 33/122
  - CORTEZ REG 3 [SHEET-408] 34/122
  - BOOT CONFIG [SHEET-409] 35/122
  - SERVICE CONNECTOR [SHEET-410] 36/122
  - I2C Switch [SHEET-411] 37/122
  - AUDIO
    - (1/2) [SHEET-600] 38/122
    - (2/2) [SHEET-601] 39/122
  - CORTEZ 1 [SHEET-700] 40/122
  - CORTEZ 2 [SHEET-701] 41/122
  - DDR I/F [SHEET-702] 42/122
  - DDR SDRAM [SHEET-703] 43/122
  - DDR TERMINATION [SHEET-704] 44/122
  - DCDC CONV. [SHEET-802] 45/122
  - LVDS OUT [SHEET-900] 46/122
  - LVDS OUT(SHARP LCD) [SHEET-901] 47/122
  - Power Connector and Dimming [SHEET-902] 48/122
  - LVDS Power and Others [SHEET-903] 49/122
- SEINE FOR FPD
  - SEINE RESET/CLOCK/TIMER/IRC [SHEET-1] 50/122
  - SEINE SLOW BUS [SHEET-2] 51/122
  - SLOW BUS ADDRESS REGISTER [SHEET3] 52/122
  - SEINE IIC/UART [SHEET-4] 53/122
  - SEINE PIO [SHEET-5] 54/122
  - ROM/FLASH [SHEET-6] 55/122

- SEINE FOR FPD
  - M-SYSTEM(NANDFLASHROM) [SHEET-7] 56/122
  - IR [SHEET-8] 57/122
  - GLINK IR-OUT [SHEET-9] 58/122
  - CLOCK GEN. [SHEET-10] 59/122
  - USB I/F [SHEET-11] 60/122
  - UART0 INTERFACE [SHEET-12] 61/122
  - EJTAG CONNECTOR [SHEET-13] 62/122
  - SEINE PCI BUS [SHEET-14] 63/122
  - MPU POWER [SHEET-16] 64/122
  - Ext UART [SHEET-17] 65/122
  - MACPHYTER 1
    - (1/2) [SHEET-20] 66/122
    - (2/2) [SHEET-21] 67/122
  - RJ45 [SHEET-22] 68/122
  - TUENR CONNECTOR [SHEET-100] 69/122
  - T313(Signal) [SHEET-101] 70/122
  - 1.1VRegulator [SHEET-102] 71/122
  - T313(Power) [SHEET-103] 72/122
  - Seine TS I/F [SHEET-150] 73/122
  - SEINE CAPTURE IN [SHEET-200] 74/122
  - VIDEO POWER [SHEET-210] 75/122
  - SEINE DIGITAL OUT [SHEET-220] 76/122
  - SEINE-BEP IF [SHEET-221] 77/122
  - SEINE DAC OUT [SHEET-225] 78/122
  - DOWN CON OUT DRIVER [SHEET-226] 79/122
  - HD OUT LPF [SHEET-227] 80/122
  - MACRO VCD
    - (1/2) [SHEET-240] 81/122
    - (2/2) [SHEET-241] 82/122
  - VIDEO LPF [SHEET-242] 83/122
  - MPEG Enc. (CLK, SDRAM) [SHEET-250] 84/122
  - MPEG Enc. (AV I/F) [SHEET-251] 85/122
  - MPEG Enc. (STREAM I/F) [SHEET-252] 86/122
  - MPEG Enc. (POWER) [SHEET-253] 87/122
  - LPF, Slicer [SHEET-260] 88/122
  - H/V Sync Sep. [SHEET-261] 89/122
  - AUDIO POWER [SHEET-300] 90/122
  - SEINE AUDIO I/F [SHEET-301] 91/122
  - AUDIO DAC [SHEET-302] 92/122
  - AUDIO PLL/DAC [SHEET-303] 93/122
  - AUDIO VTR OUT [SHEET-304] 94/122
  - AUDIO SP OUT [SHEET-305] 95/122
  - MPEG2 AUDIO TV IN [SHEET-306] 96/122
  - MPEG2 AUDIO ADC [SHEET-307] 97/122
  - MPEG2 AUDIO PLL [SHEET-308] 98/122
  - AUDIO DAC 0.1CH [SHEET-309] 99/122
  - AUDIO VTR OUT [SHEET-310] .. 100/122
  - MB86619 [SHEET-400] .. 101/122
  - MB86619 (POWER) [SHEET-401] .. 102/122
  - CPLD XILINX [SHEET-700] .. 103/122
  - SLOWBUS [SHEET-701] .. 104/122
  - PODVPP [SHEET-702] .. 105/122
  - POD I/F [SHEET-703] .. 106/122
  - PODVCC [SHEET-704] .. 107/122
  - DDR SDRAM I/F [SHEET-901] .. 108/122

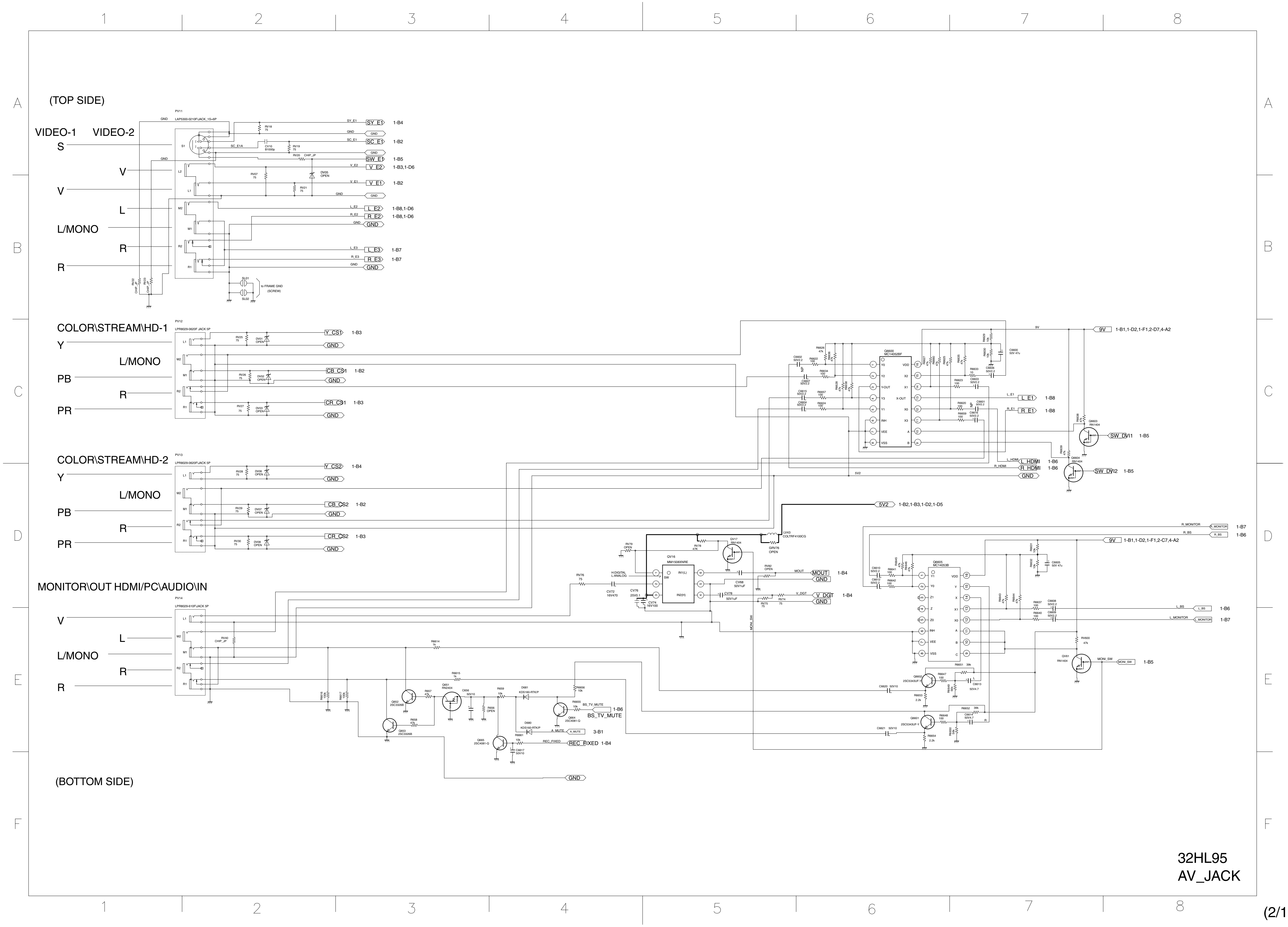
- SEINE FOR FPD
  - DDR 1 [SHEET-902] .. 109/122
  - DDR 2 [SHEET-903] .. 110/122
  - DDR 3 [SHEET-904] .. 111/122
  - DDR 4 [SHEET-905] .. 112/122
  - DDR POWER [SHEET-906] .. 113/122
  - TERMINATOR [SHEET-907] .. 113/122
  - VCXO [SHEET-941] .. 115/122
  - SEINE VDD/VSS [SHEET-950] .. 116/122
  - SIGNAL CONNECTOR [SHEET-960] .. 117/122
  - POWER CONNECTOR [SHEET-961] .. 118/122
  - Signal filter [SHEET-964] .. 119/122
- D-TUNER
  - TUNER CONNECTOR(TUNER) [SHEET-104] .. 120/122
  - OOB FDC [SHEET-105] .. 121/122
  - FAT TUNER [SHEET-106] .. 122/122

CIRCUIT BLOCK DIAGRAM

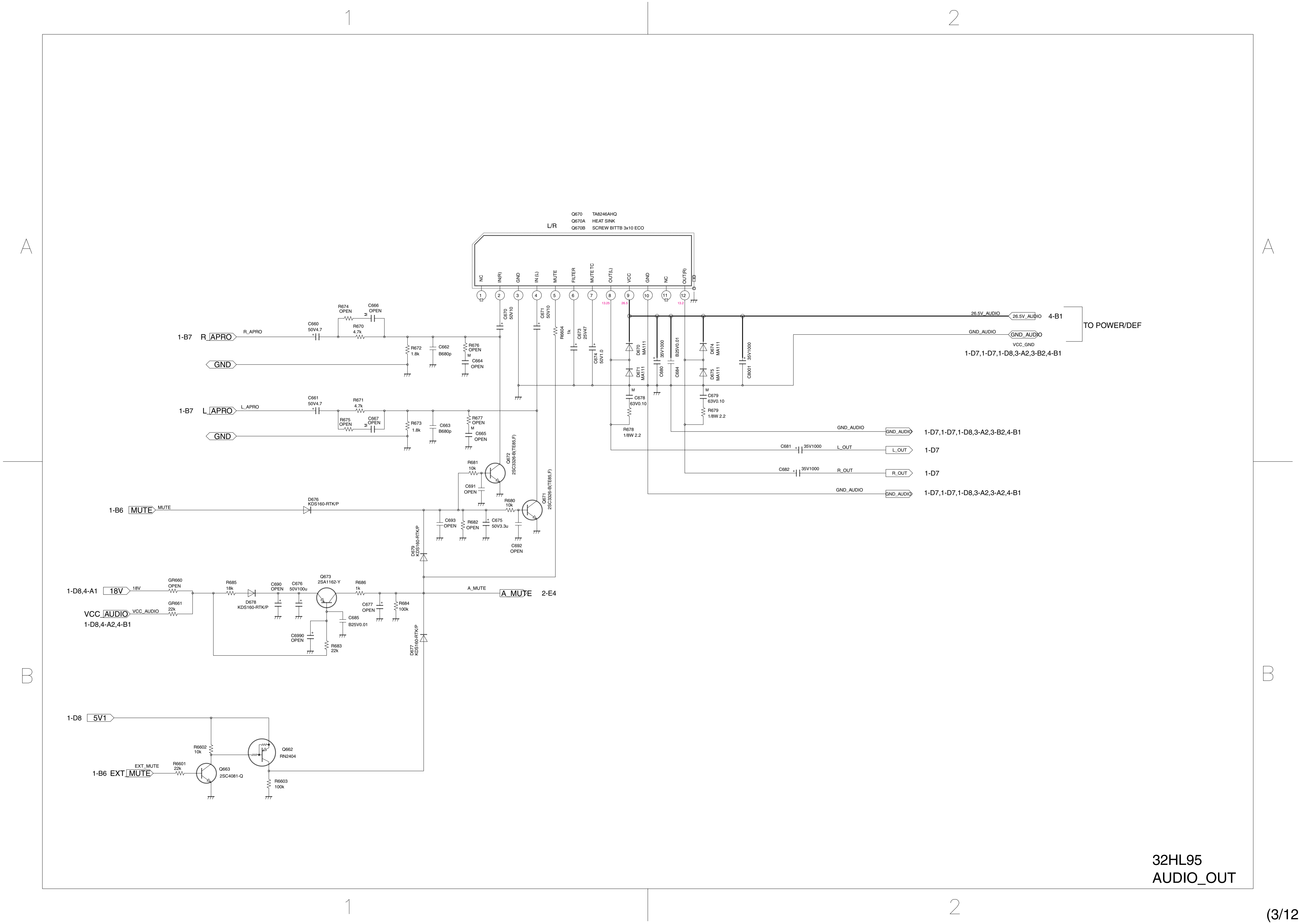

AV BOARD
TIF
EXT in
Audio out
PC IN
Digital Board
HDMI
SIGNAL BOARD
DDR SDRAM
DDR SDRAM
CORTEZ
FLI8532
VBI Data Processor
Analog Front End (16port)
Video Decoder
MUX
DCDi MADi Scaling
2nd Channel Process
OSD
BEP
LVD S
Digital Input A
Digital Input B
IR I/F
Micro-processor
GPIO
AD
PANEL I/F
I2C
EEPROM
FLASH ROM
I2C
STAND-BY MICRO
IO EXP
HDMI
MSP
I2C
PANEL
POWER BOARD
AC INPUT


OTHER PARTS
U111A PWB PD2151-1
NV01 SOLDER CREAM
NV02 SOLDER LINE
NV03 SOLDER BAR
NV04 FLUX
NV05 SOLDER THREAD 1.0
NV06 ADHESIVE
NV07 SOLVENT IPA
TO SIGNAL BOARD
PJ22A
9637S-50ATL\FFC/FPC 0.5mm50P SOCKET
PJ60A
9637S-50ATL\FFC/FPC 0.5mm50P SOCKET
PJ21A
PLUG_2mm_3P\B3B-PH-K-S
C1102 B50V0.01
C1101 B50V0.01
L121 33u
L122 22u
C121 150p
C123 33p
C108 0.1uF
R112 OPEN
R115 1k
R113 OPEN
Q102 2SA1576A
R111 100
R120 560
R121 4.7k
L123 OPEN
C125 OPEN
C120 56p
C122 27p
C124 18p
R122 RM73B1HR00OD
GR100 RM73B1HR00OD
R114 RM73B1HR00OD
L105 OPEN
GR02 CHIP_JP
GR03 CHIP_JP
1-D2 V_TV
1-D2 GND V_TV
TO IF BOARD
PJ23A
B16B-PHDSS\W-B PHD 16P PLUG TOP
P900A
PLUG_2mm_9P\B9B-PH-K-S
GR31 CHIP_JP
TO FRONT-AV BOARD
PV25A
PLUG_2mm_7P\B7B-PH-K-S
TO AV TERMINAL BOARD
P602A
PLUG_2mm_4P\B4B-PH-K-S
TO POWER BOARD
P803B
PLUG_2mm_12P\B12B-PH-K-S
R4103 680
R4101 680
R4108 680
R4106 680
R4102 470
R4107 470
R4104 1k
R4109 1k
R4100 1k
R4105 1k
Q4101 2SC3437Y-L
Q4100 2SC3437Y-L
Q4103 2SC3437Y-L
Q4102 2SC3437Y-L
TO POD_FAN
P820
PLUG_2.5mm_4P_SMK\CLP2504_0101F
TO FAN-2
P819
OPEN
TO FAN-1
P818
OPEN
TO DIGITAL BOARD
PJ63A
PLUG_2mm_5P\B5B-PH-K-S
F898 125V 1.5A
18V1
32V
9V
VCC_FAN STOP
STOP_FAN
12V_FAN
FAN_POD
1
2
3
4
5
6
7
8
A
B
C
D
E
F

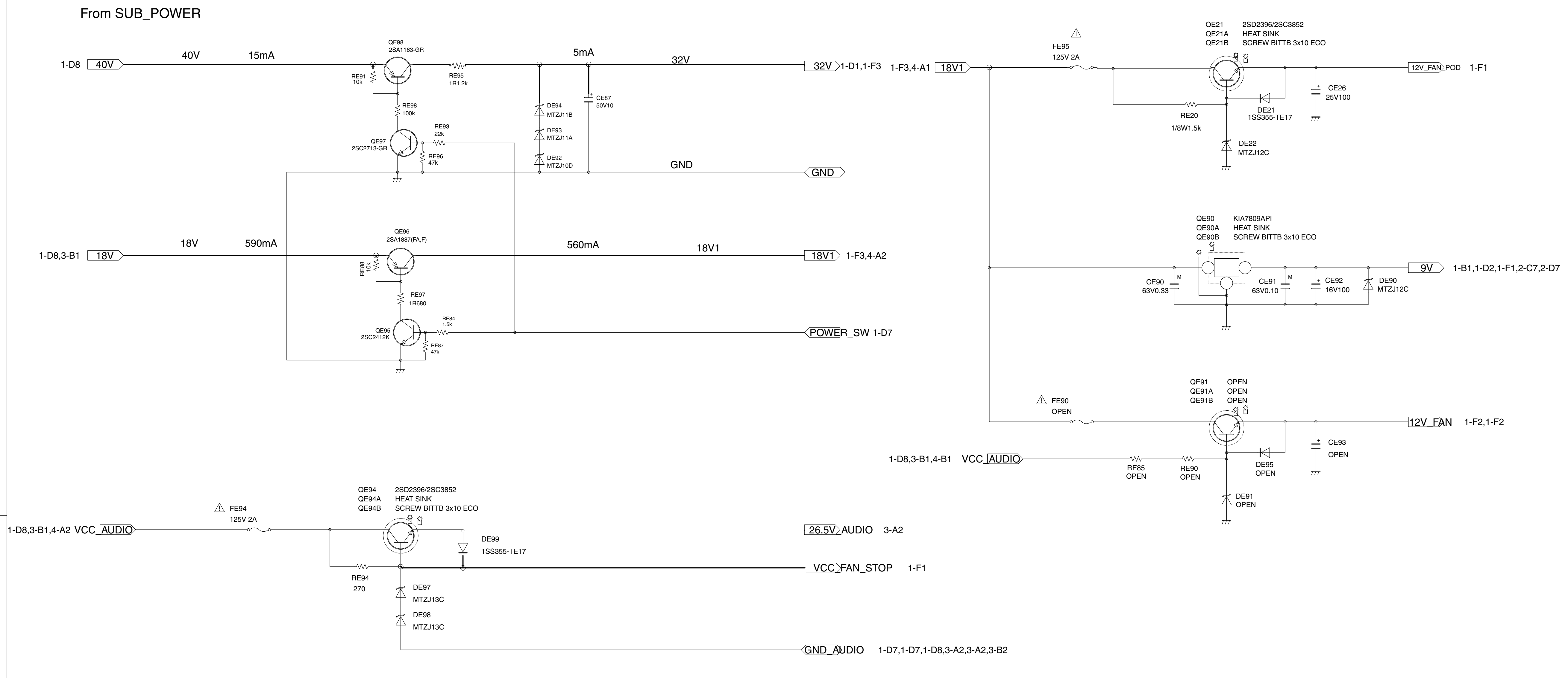
32HL95
CONNECTOR


(TOP SIDE)
VIDEO-1
VIDEO-2
S
V
V
L
L/MONO
R
R
PV11
LAP5300-0210FJACK_1S+6P
SY_E1
SC_E1
SW_E1
V_E2
V_E1
L_E2
R_E2
L_E3
R_E3
GND
1-B4
1-B2
1-B5
1-B3,1-D6
1-B8,1-D6
1-B7
to FRAME GND (SCREW)
COLOR\STREAM\HD-1
Y
L/MONO
PB
R
PR
PV12
Y_CS1
CB_CS1
CR_CS1
COLOR\STREAM\HD-2
PV13
Y_CS2
CB_CS2
CR_CS2
MONITOR\OUT HDMI/PC\AUDIO\IN
PV14
V
L
L/MONO
R
R
Q6600
MC14052BF
9V
1-B1,1-D2,1-F1,2-D7,4-A2
L_E1
R_E1
1-B8
SW_DVI1
SW_DVI2
L_HDMI
R_HDMI
1-B6
5V2
1-B2,1-B3,1-D2,1-D5
QV16
MM1508XNRE
QV17
MOUT
V_DGT
LV43
R_MONITOR
R_BS
1-B7
1-B1,1-D2,1-F1,2-C7,4-A2
Q6605
MC14053B
L_BS
L_MONITOR
MONI_SW
BS_TV_MUTE
1-B6
A_MUTE
3-B1
REC_FIXED
1-B4
(BOTTOM SIDE)
1
2
3
4
5
6
7
8
A
B
C
D
E
F

32HL95
AV_JACK


Q670 TA8246AHQ
Q670A HEAT SINK
Q670B SCREW BITTB 3x10 ECO
L/R
NC
IN(R)
GND
IN (L)
MUTE
FILTER
MUTE TC
OUT(L)
VCC
GND
NC
OUT(R)
1-B7
R_APRO
L_APRO
GND
1-B6
MUTE
1-D8,4-A1
18V
VCC_AUDIO
1-D8,4-A2,4-B1
1-D8
5V1
1-B6 EXT_MUTE
A_MUTE
2-E4
26.5V_AUDIO
4-B1
GND_AUDIO
VCC_GND
TO POWER/DEF
1-D7,1-D7,1-D8,3-A2,3-B2,4-B1
1-D7,1-D7,1-D8,3-A2,3-B2,4-B1
L_OUT
1-D7
R_OUT
1-D7
1-D7,1-D7,1-D8,3-A2,3-A2,4-B1
C660 50V4.7
C661 50V4.7
R674 OPEN
C666 OPEN
R670 4.7k
R671 4.7k
R675 OPEN
C667 OPEN
R672 1.8k
R673 1.8k
C662 B680p
C663 B680p
R676 OPEN
C664 OPEN
R677 OPEN
C665 OPEN
C670 50V10
C671 50V10
R6604 1k
C673 25V47
C674 50V1.0
D670 MA111
D671 MA111
D674 MA111
D675 MA111
C680 35V1000
C684 B25V0.01
C6001 35V1000
C678 63V0.10
C679 63V0.10
R678 1/8W 2.2
R679 1/8W 2.2
C681 35V1000
C682 35V1000
Q672 2SC3326-B(TE85,F)
Q671 2SC3326-B(TE85,F)
R681 10k
C691 OPEN
R680 10k
D676 KDS160-RTK/P
C693 OPEN
R682 OPEN
C675 50V3.3u
C692 OPEN
D679 KDS160-RTK/P
GR660 OPEN
GR661 22k
R685 18k
D678 KDS160-RTK/P
C690 OPEN
C676 50V100u
Q673 2SA1162-Y
R686 1k
C677 OPEN
R684 100k
C685 B25V0.01
C6990 OPEN
R683 22k
D677 KDS160-RTK/P
R6602 10k
Q662 RN2404
R6601 22k
Q663 2SC4081-Q
R6603 100k
13.25
26.5
13.2
1
2
A
B

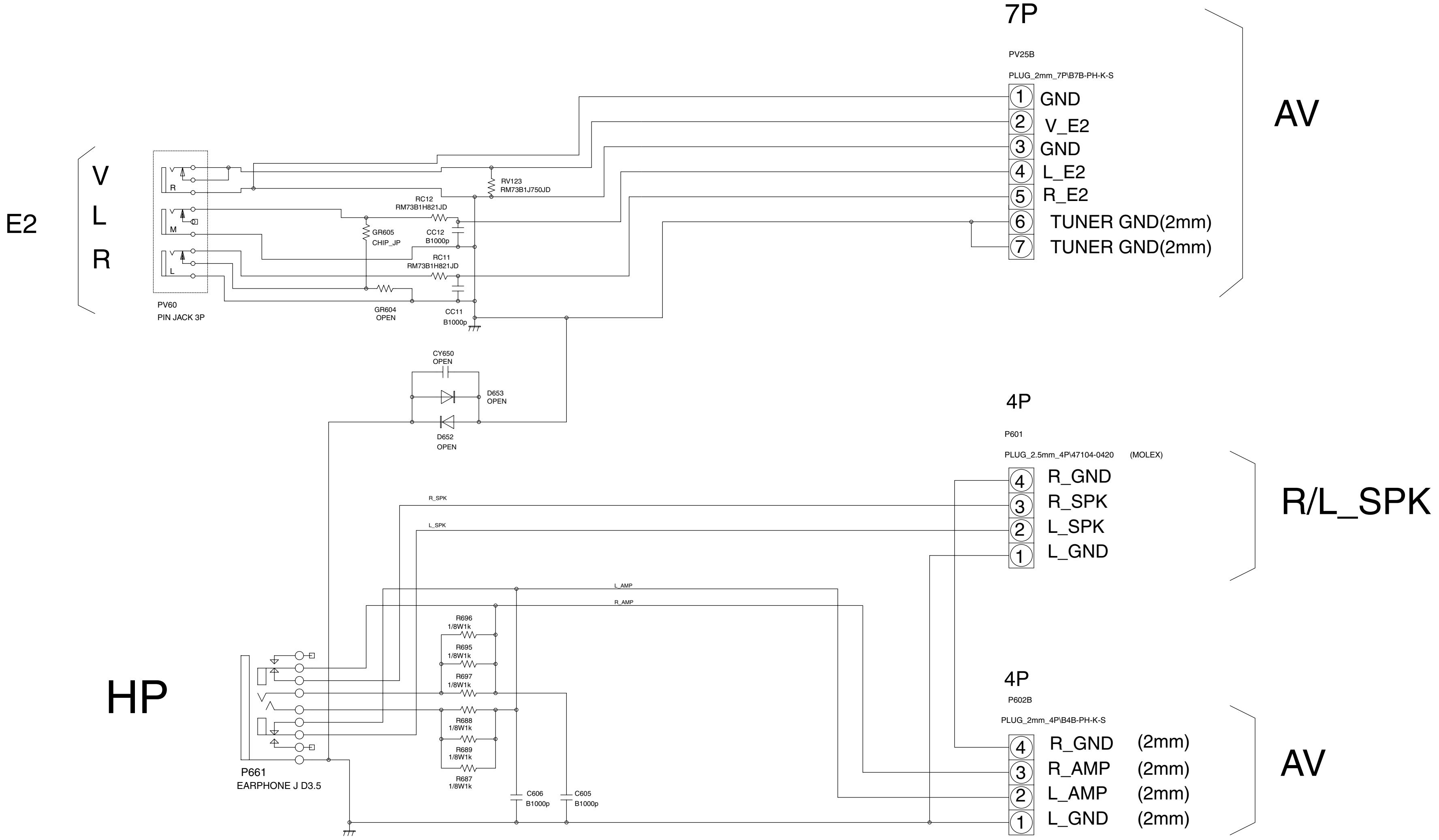
32HL95
AUDIO_OUT


1
2
A
B
From SUB_POWER
1-D8
40V
40V
15mA
QE98
2SA1163-GR
RE91
10k
RE95
1R1.2k
5mA
32V
32V
1-D1,1-F3
RE98
100k
QE97
2SC2713-GR
RE93
22k
RE96
47k
DE94
MTZJ11B
DE93
MTZJ11A
DE92
MTZJ10D
CE87
50V10
GND
GND
1-D8,3-B1
18V
18V
590mA
QE96
2SA1887(FA,F)
RE88
10k
560mA
18V1
18V1
1-F3,4-A2
RE97
1R680
QE95
2SC2412K
RE84
1.5k
RE87
47k
POWER_SW 1-D7
1-F3,4-A1
18V1
FE95
125V 2A
QE21
QE21A
QE21B
2SD2396/2SC3852
HEAT SINK
SCREW BITTB 3x10 ECO
12V_FAN_POD
1-F1
RE20
1/8W1.5k
DE21
1SS355-TE17
CE26
25V100
DE22
MTZJ12C
QE90
QE90A
QE90B
KIA7809API
HEAT SINK
SCREW BITTB 3x10 ECO
CE90
63V0.33
M
CE91
63V0.10
M
CE92
16V100
DE90
MTZJ12C
9V
1-B1,1-D2,1-F1,2-C7,2-D7
FE90
OPEN
QE91
QE91A
QE91B
OPEN
OPEN
OPEN
12V_FAN
1-F2,1-F2
1-D8,3-B1,4-B1
VCC_AUDIO
RE85
OPEN
RE90
OPEN
DE95
OPEN
CE93
OPEN
DE91
OPEN
1-D8,3-B1,4-A2
VCC_AUDIO
FE94
125V 2A
QE94
QE94A
QE94B
2SD2396/2SC3852
HEAT SINK
SCREW BITTB 3x10 ECO
DE99
1SS355-TE17
26.5V_AUDIO
3-A2
RE94
270
VCC_FAN_STOP
1-F1
DE97
MTZJ13C
DE98
MTZJ13C
GND_AUDIO
1-D7,1-D7,1-D8,3-A2,3-A2,3-B2

32HL95
REGULATOR

OTHER PARTS

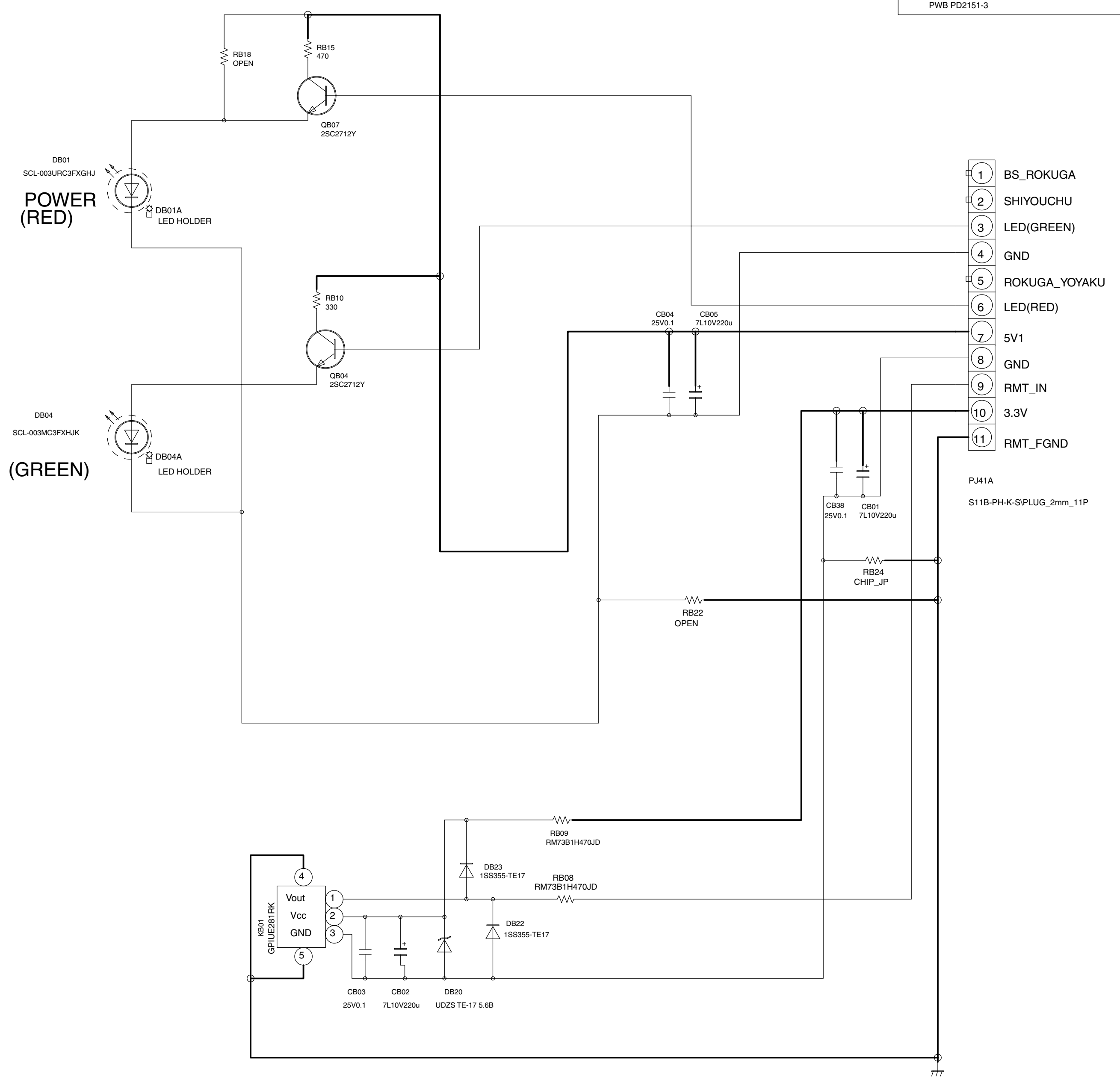
⚹ U111B
PWB PD2151-2


E2
V
L
R
PV60
PIN JACK 3P
R
M
L
RC12
RM73B1H821JD
RV123
RM73B1J750JD
GR605
CHIP_JP
CC12
B1000p
RC11
RM73B1H821JD
GR604
OPEN
CC11
B1000p
CY650
OPEN
D653
OPEN
D652
OPEN
7P
PV25B
PLUG_2mm_7P\B7B-PH-K-S
1 GND
2 V_E2
3 GND
4 L_E2
5 R_E2
6 TUNER GND(2mm)
7 TUNER GND(2mm)
AV
4P
P601
PLUG_2.5mm_4P\47104-0420 (MOLEX)
4 R_GND
3 R_SPK
2 L_SPK
1 L_GND
R/L_SPK
R_SPK
L_SPK
L_AMP
R_AMP
HP
R696
1/8W1k
R695
1/8W1k
R697
1/8W1k
R688
1/8W1k
R689
1/8W1k
R687
1/8W1k
C606
B1000p
C605
B1000p
P661
EARPHONE J D3.5
4P
P602B
PLUG_2mm_4P\B4B-PH-K-S
4 R_GND (2mm)
3 R_AMP (2mm)
2 L_AMP (2mm)
1 L_GND (2mm)
AV

32HL95
FRONT-AV

OTHER PARTS

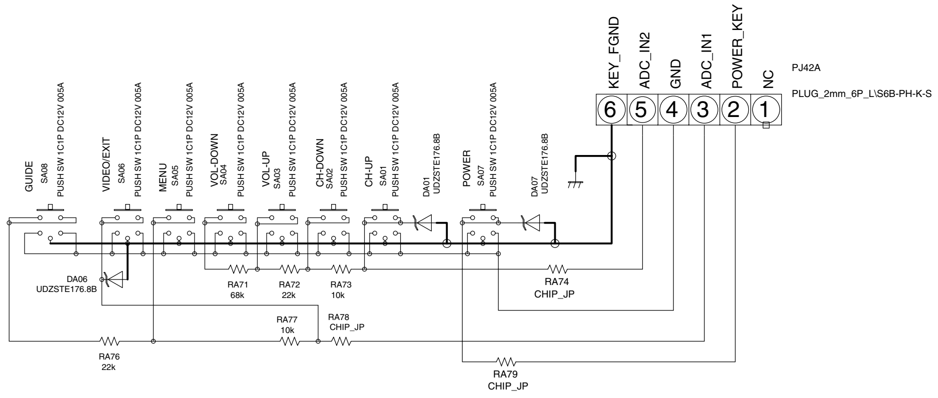
⚹ U111C
PWB PD2151-3


RB18
OPEN
RB15
470
QB07
2SC2712Y
DB01
SCL-003URC3FXGHJ
POWER
(RED)
DB01A
LED HOLDER
RB10
330
QB04
2SC2712Y
DB04
SCL-003MC3FXHJK
(GREEN)
DB04A
LED HOLDER
CB04
25V0.1
CB05
7L10V220u
1 BS_ROKUGA
2 SHIYOUCHU
3 LED(GREEN)
4 GND
5 ROKUGA_YOYAKU
6 LED(RED)
7 5V1
8 GND
9 RMT_IN
10 3.3V
11 RMT_FGND
PJ41A
S11B-PH-K-S\PLUG_2mm_11P
CB38
25V0.1
CB01
7L10V220u
RB24
CHIP_JP
RB22
OPEN
RB09
RM73B1H470JD
DB23
1SS355-TE17
RB08
RM73B1H470JD
DB22
1SS355-TE17
KB01
GPIUE281RK
Vout
Vcc
GND
1
2
3
4
5
CB03
25V0.1
CB02
7L10V220u
DB20
UDZS TE-17 5.6B

32HL95
LED_RMT

OTHER PARTS

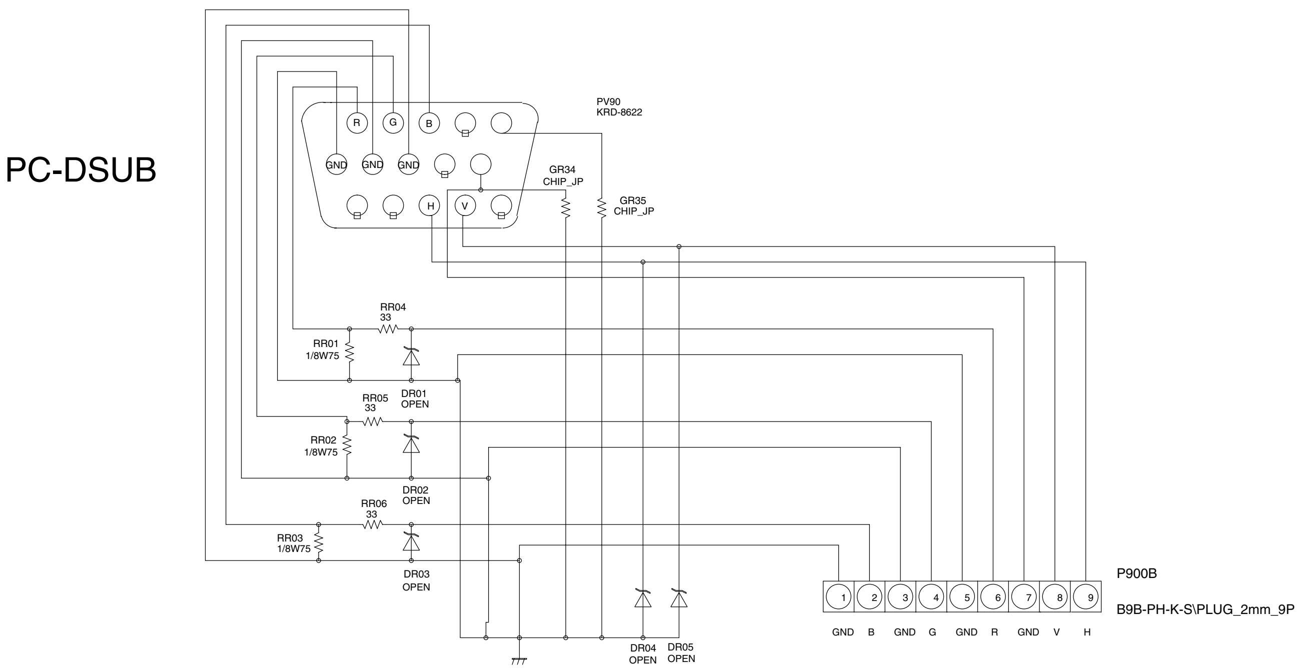
⚹ U111D
PWB PD2151-4


GUIDE
SA08
PUSH SW 1C1P DC12V 005A
VIDEO/EXIT
SA06
PUSH SW 1C1P DC12V 005A
MENU
SA05
PUSH SW 1C1P DC12V 005A
VOL-DOWN
SA04
PUSH SW 1C1P DC12V 005A
VOL-UP
SA03
PUSH SW 1C1P DC12V 005A
CH-DOWN
SA02
PUSH SW 1C1P DC12V 005A
CH-UP
SA01
PUSH SW 1C1P DC12V 005A
DA01
UDZSTE176.8B
POWER
SA07
PUSH SW 1C1P DC12V 005A
DA07
UDZSTE176.8B
KEY_FGND
ADC_IN2
GND
ADC_IN1
POWER_KEY
NC
PJ42A
PLUG_2mm_6P_L\S6B-PH-K-S
6
5
4
3
2
1
DA06
UDZSTE176.8B
RA71
68k
RA72
22k
RA73
10k
RA74
CHIP_JP
RA77
10k
RA78
CHIP_JP
RA76
22k
RA79
CHIP_JP

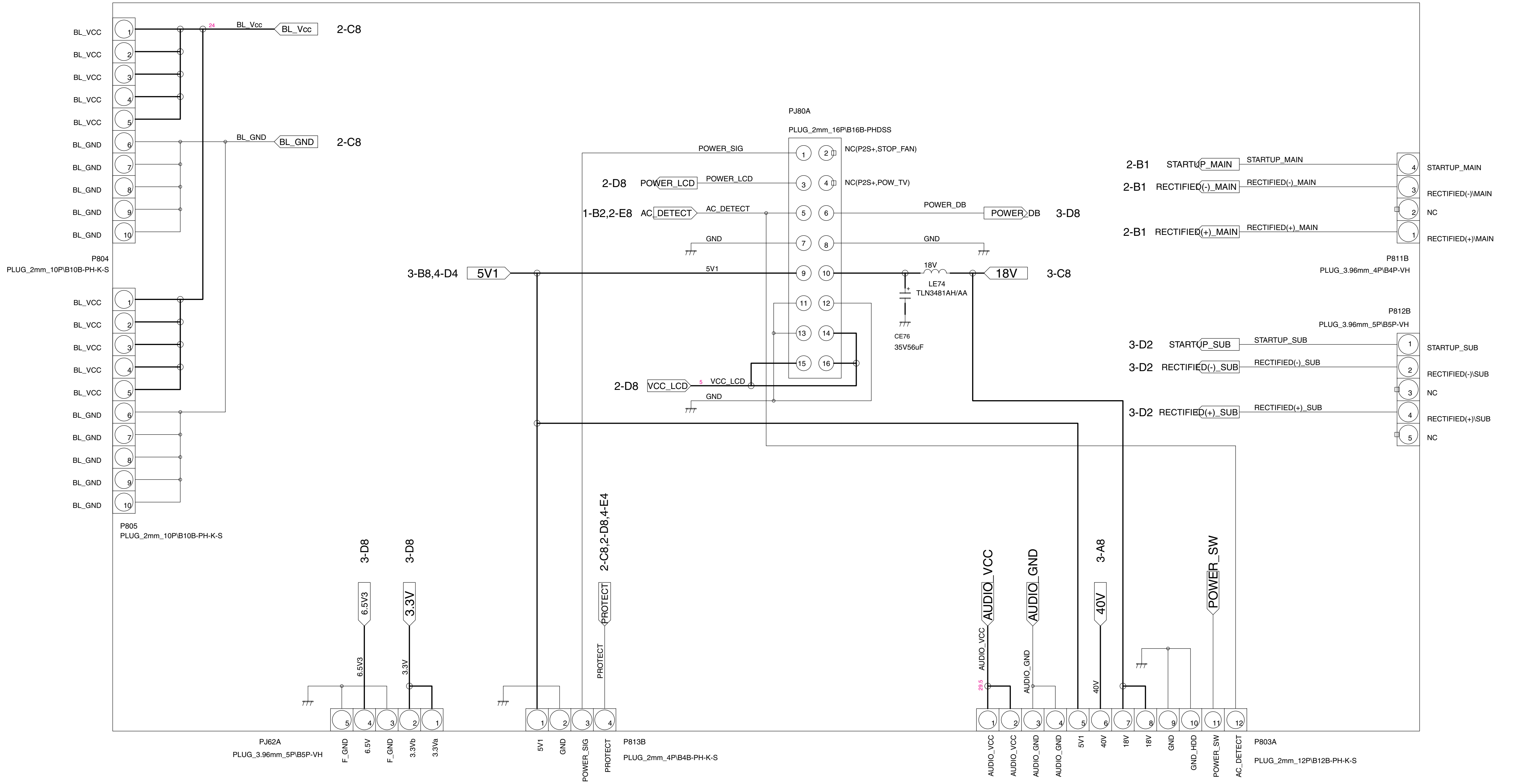
32HL95
KEY

OTHER PARTS

⁎ U111E
PWB PD2151-5


PC-DSUB
R
G
B
GND
GND
GND
H
V
PV90
KRD-8622
GR34
CHIP_JP
GR35
CHIP_JP
RR04
33
RR01
1/8W75
DR01
OPEN
RR05
33
RR02
1/8W75
DR02
OPEN
RR06
33
RR03
1/8W75
DR03
OPEN
DR04
OPEN
DR05
OPEN
P900B
B9B-PH-K-S\PLUG_2mm_9P
1
2
3
4
5
6
7
8
9
GND
B
GND
G
GND
R
GND
V
H

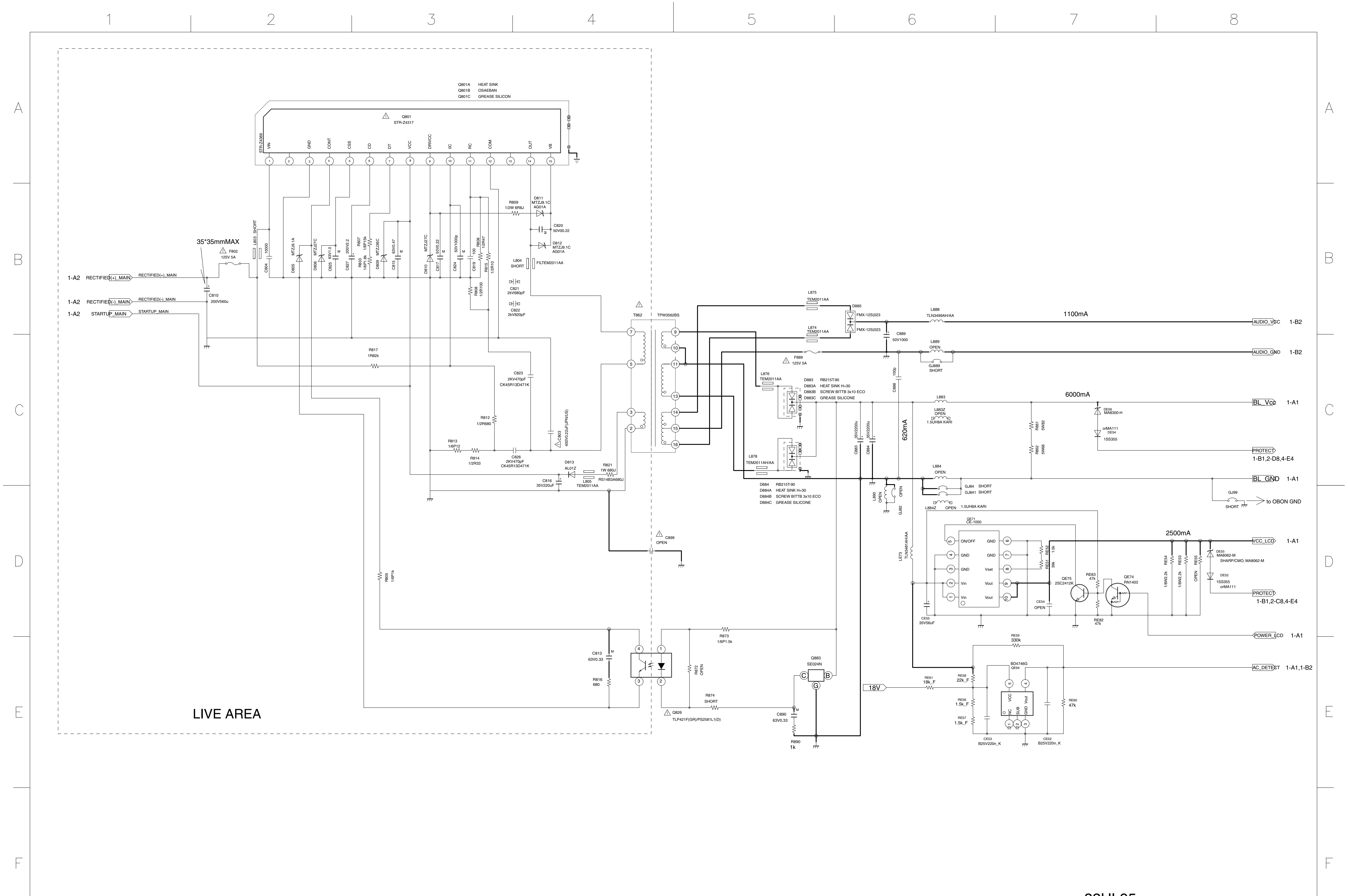
32HL95
PC-IN BOARD


BL_VCC
BL_VCC
BL_VCC
BL_VCC
BL_VCC
BL_GND
BL_GND
BL_GND
BL_GND
BL_GND
P804
PLUG_2mm_10P\B10B-PH-K-S
BL_Vcc
BL_Vcc
2-C8
BL_GND
BL_GND
2-C8
BL_VCC
BL_VCC
BL_VCC
BL_VCC
BL_VCC
BL_GND
BL_GND
BL_GND
BL_GND
BL_GND
P805
PLUG_2mm_10P\B10B-PH-K-S
PJ80A
PLUG_2mm_16P\B16B-PHDSS
POWER_SIG
NC(P2S+,STOP_FAN)
2-D8
POWER_LCD
POWER_LCD
NC(P2S+,POW_TV)
1-B2,2-E8
AC_DETECT
AC_DETECT
POWER_DB
POWER_DB
3-D8
GND
GND
3-B8,4-D4
5V1
5V1
18V
LE74
TLN3481AH/AA
18V
3-C8
CE76
35V56uF
2-D8
VCC_LCD
VCC_LCD
GND
2-B1
STARTUP_MAIN
STARTUP_MAIN
2-B1
RECTIFIED(-)_MAIN
RECTIFIED(-)_MAIN
2-B1
RECTIFIED(+)_MAIN
RECTIFIED(+)_MAIN
STARTUP_MAIN
RECTIFIED(-)\MAIN
NC
RECTIFIED(+)\MAIN
P811B
PLUG_3.96mm_4P\B4P-VH
P812B
PLUG_3.96mm_5P\B5P-VH
3-D2
STARTUP_SUB
STARTUP_SUB
3-D2
RECTIFIED(-)_SUB
RECTIFIED(-)_SUB
3-D2
RECTIFIED(+)_SUB
RECTIFIED(+)_SUB
STARTUP_SUB
RECTIFIED(-)\SUB
NC
RECTIFIED(+)\SUB
NC
3-D8
6.5V3
3-D8
3.3V
6.5V3
3.3V
2-C8,2-D8,4-E4
PROTECT
PROTECT
PJ62A
PLUG_3.96mm_5P\B5P-VH
F_GND
6.5V
F_GND
3.3Vb
3.3Va
5V1
GND
POWER_SIG
PROTECT
P813B
PLUG_2mm_4P\B4B-PH-K-S
AUDIO_VCC
AUDIO_GND
3-A8
40V
POWER_SW
AUDIO_VCC
AUDIO_GND
40V
AUDIO_VCC
AUDIO_VCC
AUDIO_GND
AUDIO_GND
5V1
40V
18V
18V
GND
GND_HDD
POWER_SW
AC_DETECT
P803A
PLUG_2mm_12P\B12B-PH-K-S

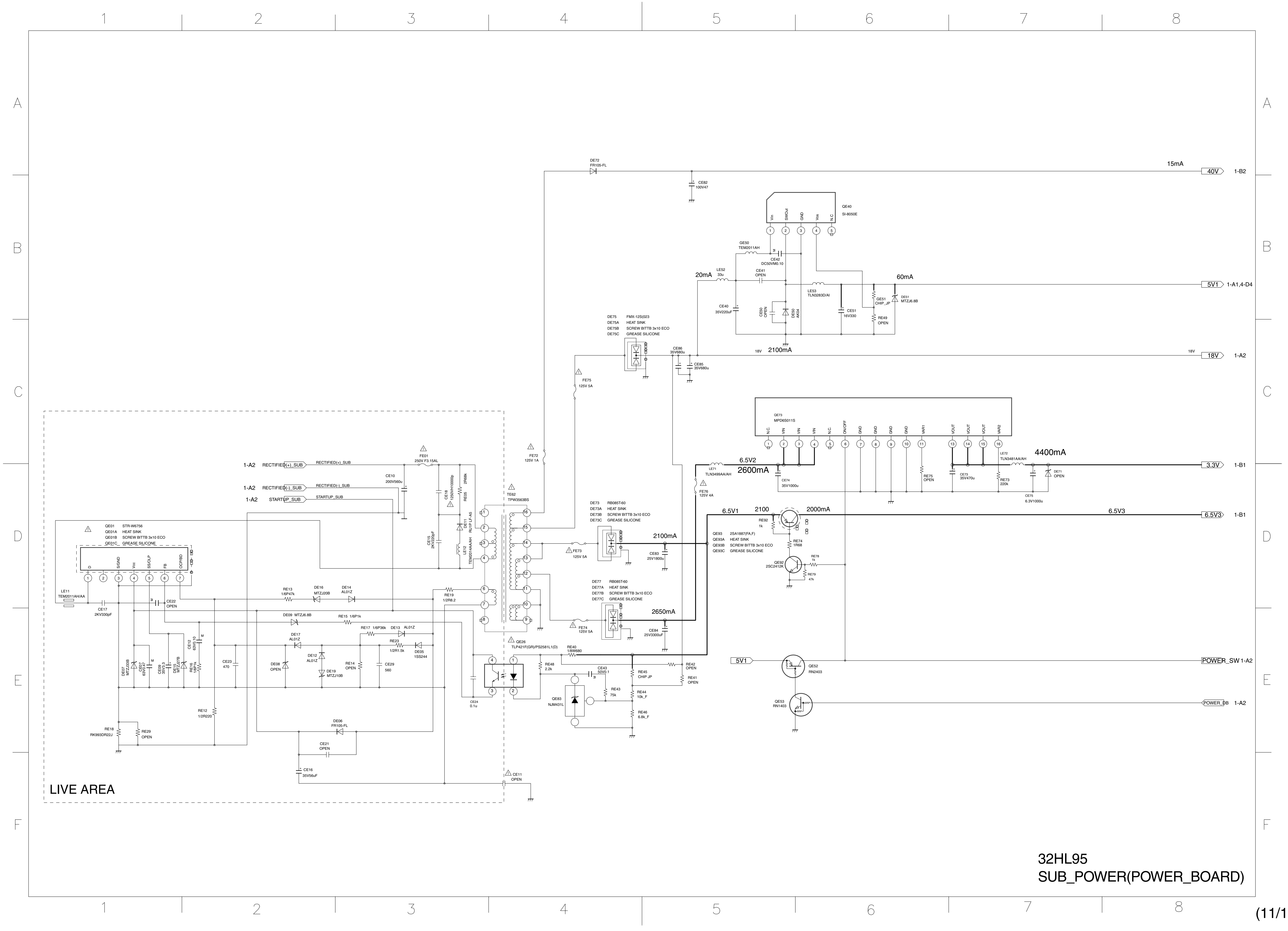
OTHER PARTS

⁎ U821 PWB PD2082ZA			
⁎ N801 SOLDER CREAM	⁎ N804 FLUX	⁎ N807 SOLVENT IPA	
⁎ N802 SOLDER LINE	⁎ N805 SOLDER THREAD 1.0		
⁎ N803 SOLDER BAR	⁎ N806 ADHESIVE		⁎ P890 WIRE CLIP

32HL95
CONNECTOR(POWER_BOARD)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
Q801A HEAT SINK
Q801B OSAEBAN
Q801C GREASE SILICON
Q801
STR-Z4317
STR-Z4369
VIN
GND
CONT
CSS
CD
DT
VCC
DRIVCC
0C
RC
COM
OUT
VB
35*35mmMAX
F802
125V 5A
L803 SHORT
1-A2 RECTIFIED(+)_MAIN
1-A2 RECTIFIED(-)_MAIN
1-A2 STARTUP_MAIN
C810
200V560u
C804
10000
D805 MTZJ9.1A
D806 MTZJ27C
C825 63V1.0
C827 200V2.2
R803 1/6P1.8k
R807 1/6P15k
D809 MTZJ6C
C815 63V0.47
D810 MTZJ27C
C817 50V0.22
C824 50V1000p
C819 100
R808 1/2R100
R806 1/2R47
R815 1/2R10
R809 1/2W 6R8J
D811 MTZJ9.1C AG01A
C820 50V00.22
D812 MTZJ9.1C AG01A
L804 SHORT
FILTEM2011AA
C821 2kV680pF
C822 2kV820pF
R817 1R82k
C823 2KV470pF CK45R13D471K
R812 1/2R680
C803 400V0.22u(FJPN(AS))
R813 1/6P12
R814 1/2R33
C826 2KV470pF CK45R13D471K
D813 AL01Z
R821 1W 680J RS14B3A680J
L805 TEM2011AA
C816 35V220uF
T862
TPW3562BS
C899 OPEN
R805 1/6P1k
C813 63V0.33
R816 680
R822 OPEN
R873 1/6P1.5k
R874 SHORT
Q826 TLP421F(GR)/PS2581L1(D)
Q883 SE024N
C890 63V0.33
R890 1k
LIVE AREA
L875 TEM2011AA
L874 TEM2011AA
D885
FMX-12S(023
FMX-12S(023
L888 TLN3499AH/AA
1100mA
C889 50V1000
F889 125V 5A
L889 OPEN
GJ889 SHORT
AUDIO_VCC 1-B2
AUDIO_GND 1-B2
L876 TEM2011AA
D883 RB215T-90
D883A HEAT SINK H=30
D883B SCREW BITTB 3x10 ECO
D883C GREASE SILICONE
C888 100p
L883
L883Z OPEN 1.5UH8A KARI
6000mA
BL_Vcc 1-A1
DE56 MA8300-H
orMA111 DE54
1SS355
R861 5W82
R862 5W68
PROTECT 1-B1,2-D8,4-E4
C883 35V2200u
C884 35V2200u
620mA
L878 TEM2011AH/AA
D884 RB215T-90
D884A HEAT SINK H=30
D884B SCREW BITTB 3x10 ECO
D884C GREASE SILICONE
L884 OPEN
GJ84 SHORT
GJ841 SHORT
L884Z OPEN 1.5UH8A KARI
L890 OPEN
GJ82
BL_GND 1-A1
GJ99 SHORT
to OBON GND
CE71 CE-1050
ON/OFF
GND
Vin
Vset
Vout
2500mA
VCC_LCD 1-A1
LE73 TLN3481AH/AA
CE55 35V56uF
CE54 OPEN
RE52 1.5k
RE51 39k
RE83 47k
QE75 2SC2412K
QE74 RN1403
RE82 47k
RE54 1/8W2.2k
RE53 1/8W2.2k
RE55 OPEN
DE55 MA8062-M SHARP/CMO; MA8062-M
DE52 1SS355 orMA111
PROTECT 1-B1,2-C8,4-E4
POWER_LCD 1-A1
RE59 330k
BD4746G QE64
AC_DETECT 1-A1,1-B2
18V
RE61 18k_F
RE58 22k_F
RE56 1.5k_F
RE57 1.5k_F
VCC
NC
SUB
GND
Vout
RE60 47k
CE53 B25V220n_K
CE52 B25V220n_K

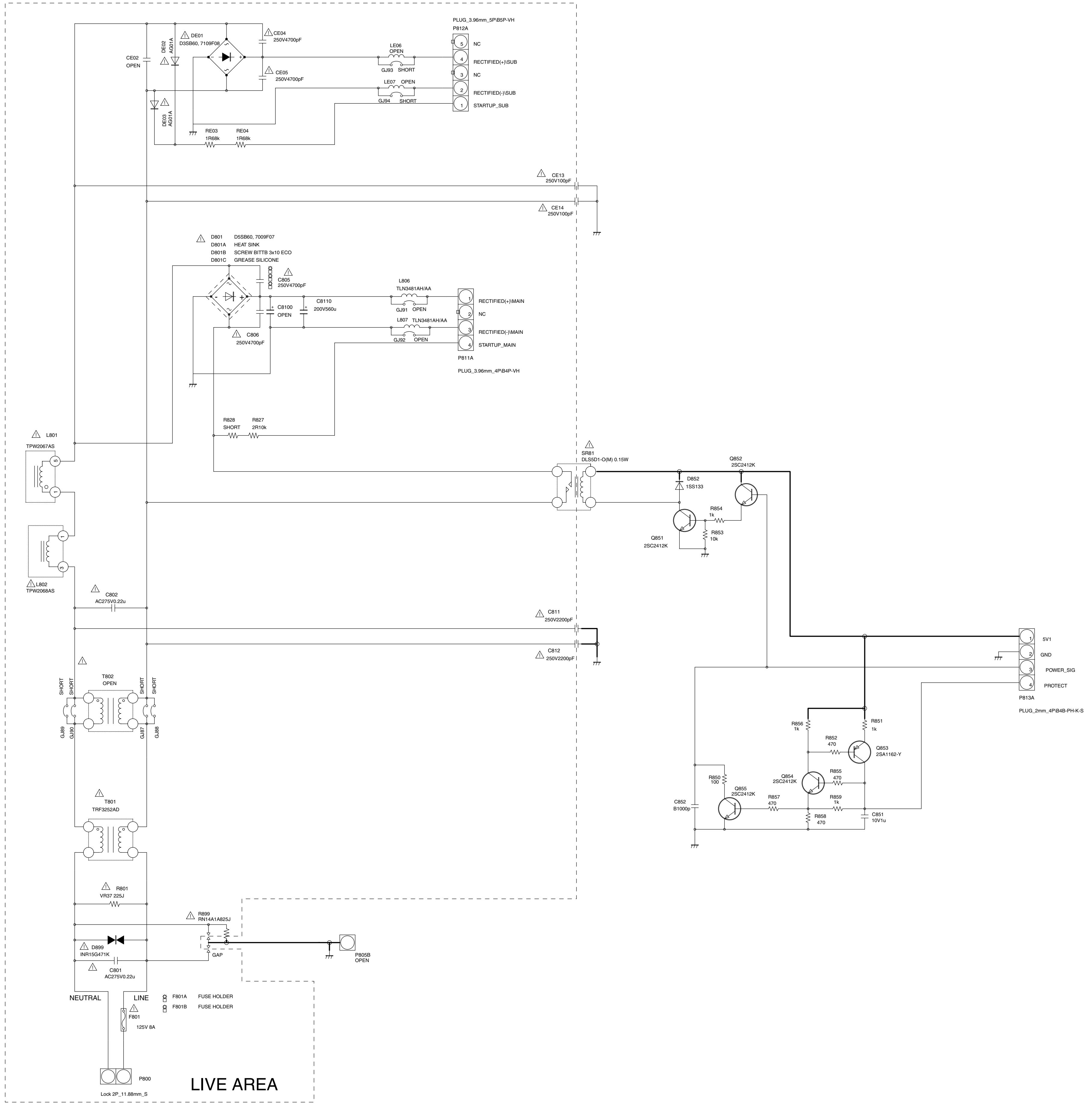
32HL95
MAIN_POWER(POWER_BOARD)


1-A2 RECTIFIED(+)_SUB
RECTIFIED(+)_SUB
1-A2 RECTIFIED(-)_SUB
RECTIFIED(-)_SUB
1-A2 STARTUP_SUB
STARTUP_SUB
FE01 250V F3.15AL
CE10 200V560u
CE18 1250VH10000p
RE05 2R68k
CE15 2KV220pF
DE11 RU1P LF-A5
LE12 TEM2014AA/AH
TE62 TPW3563BS
QE01 STR-W6756
QE01A HEAT SINK
QE01B SCREW BITTB 3x10 ECO
QE01C GREASE SILICONE
D
S/GND
Vcc
SS/OLP
FB
OCP/BD
LE11 TEM2011AH/AA
CE17 2KV330pF
CE22 OPEN
RE13 1/6P47k
DE16 MTZJ20B
DE14 AL01Z
RE19 1/2R8.2
DE09 MTZJ6.8B
RE15 1/6P1k
RE17 1/6P36k
DE13 AL01Z
RE23 1/2R1.5k
DE05 1SS244
DE17 AL01Z
DE12 AL01Z
DE19 MTZJ10B
DE08 OPEN
RE14 OPEN
CE29 560
CE23 470
CE12 63V0.10
DE27 MTZJ33B
CE07 63V0.47
CE09 35V3.3
DE15 MTZJ27B
RE16 1/6P1k
RE12 1/2R220
RE18 RK993DR22J
RE29 OPEN
DE06 FR105-FL
CE21 OPEN
CE16 35V56uF
CE24 0.1u
CE11 OPEN
LIVE AREA
QE26 TLF421F(GR)/PS2581L1(D)
RE48 2.2k
RE40 1/8W680
CE43 50V0.1
RE43 75k
QE83 NJM431L
RE45 CHIP JP
RE44 10k_F
RE46 6.8k_F
RE42 OPEN
RE41 OPEN
FE72 125V 1A
FE75 125V 5A
DE72 FR105-FL
CE82 100V47
15mA
40V 1-B2
QE40 SI-8050E
Vin SWOut GND Vos N.C
GE50 TEM2011AH
CE42 DC50VM0.10
LE52 33u
CE41 OPEN
20mA
CE40 35V220uF
CE50 OPEN
DE50 AK04
LE53 TLN3283D/AI
CE51 16V330
GE51 CHIP_JP
RE49 OPEN
DE51 MTZJ6.8B
60mA
5V1 1-A1,4-D4
DE75 FMX-12S(023
DE75A HEAT SINK
DE75B SCREW BITTB 3x10 ECO
DE75C GREASE SILICONE
CE86 35V680u
CE85 35V680u
18V 2100mA
18V
18V 1-A2
QE73 MPD6S011S
N.C. VIN VIN VIN N.C. ON/OFF GND GND GND GND VAR1 VOUT VOUT VOUT VAR2
LE71 TLN3499AA/AH
6.5V2
2600mA
CE74 35V1000u
RE75 OPEN
CE73 35V470u
LE72 TLN3481AA/AH
4400mA
RE73 220k
CE75 6.3V1000u
DE71 OPEN
3.3V 1-B1
FE76 125V 4A
DE73 RB085T-60
DE73A HEAT SINK
DE73B SCREW BITTB 3x10 ECO
DE73C GREASE SILICONE
FE73 125V 5A
2100mA
CE83 25V1800u
6.5V1
2100
2000mA
RE92 1k
QE93 2SA1887(FA,F)
QE93A HEAT SINK
QE93B SCREW BITTB 3x10 ECO
QE93C GREASE SILICONE
RE74 1R68
QE92 2SC2412K
RE78 1k
RE79 47k
6.5V3
6.5V3 1-B1
DE77 RB085T-60
DE77A HEAT SINK
DE77B SCREW BITTB 3x10 ECO
DE77C GREASE SILICONE
FE74 125V 5A
2650mA
CE84 25V3300uF
5V1
QE52 RN2403
POWER_SW 1-A2
QE53 RN1403
POWER_DB 1-A2
1 2 3 4 5 6 7 8
A B C D E F

32HL95
SUB_POWER(POWER_BOARD)

OTHER PARTS

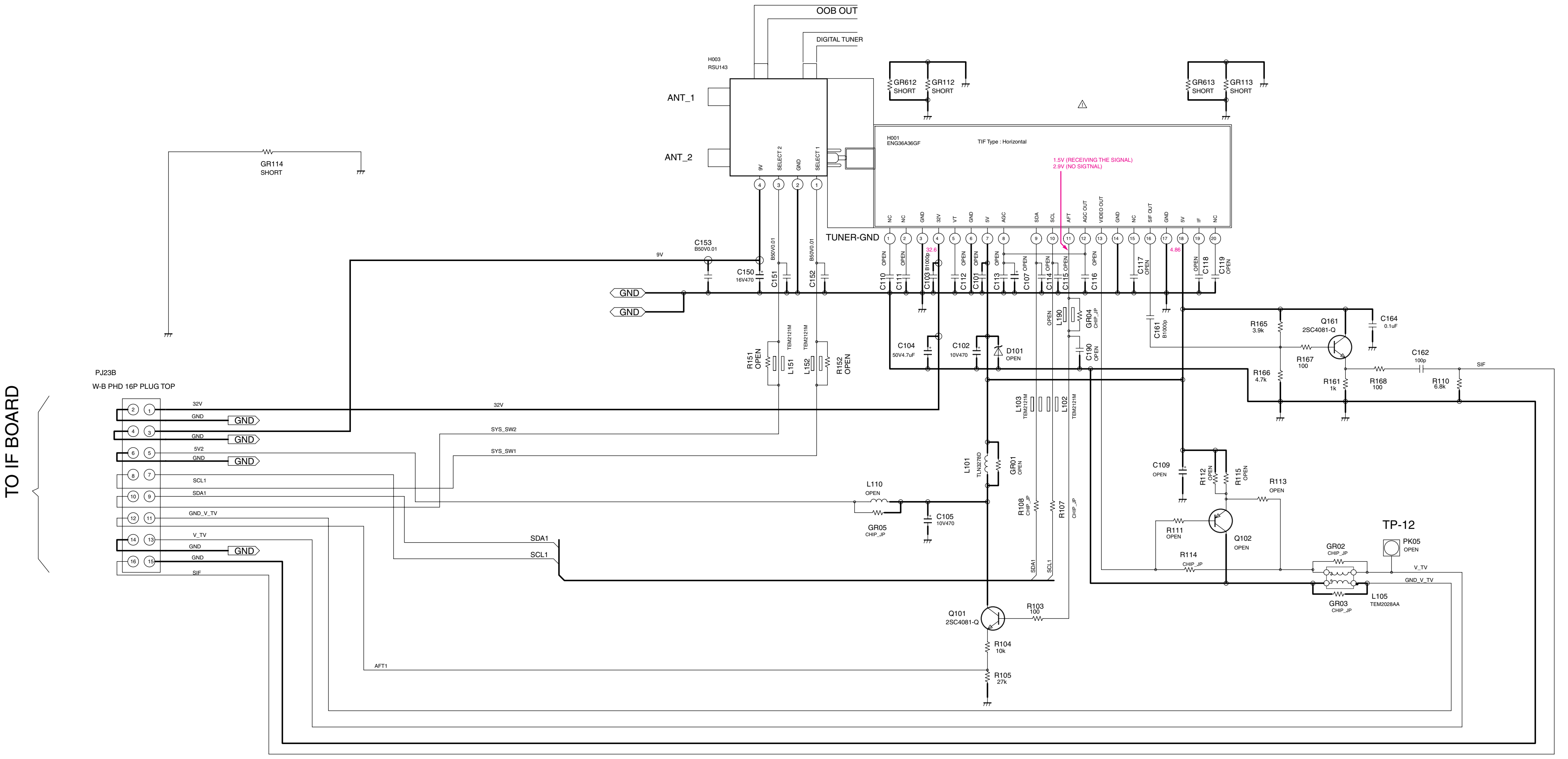
⁎ U822
PWB PD2082ZA


DE01
D3SB60, 7109F08
DE02
AG01A
DE03
AG01A
CE02
OPEN
CE04
250V4700pF
CE05
250V4700pF
LE06
OPEN
GJ93 SHORT
LE07 OPEN
GJ94 SHORT
RE03
1R68k
RE04
1R68k
PLUG_3.96mm_5P\B5P-VH
P812A
5 NC
4 RECTIFIED(+)\SUB
3 NC
2 RECTIFIED(-)\SUB
1 STARTUP_SUB
CE13
250V100pF
CE14
250V100pF
D801 D5SB60, 7009F07
D801A HEAT SINK
D801B SCREW BITTB 3x10 ECO
D801C GREASE SILICONE
C805
250V4700pF
C8100
OPEN
C8110
200V560u
C806
250V4700pF
L806
TLN3481AH/AA
GJ91 OPEN
L807 TLN3481AH/AA
GJ92 OPEN
1 RECTIFIED(+)\MAIN
2 NC
3 RECTIFIED(-)\MAIN
4 STARTUP_MAIN
P811A
PLUG_3.96mm_4P\B4P-VH
R828
SHORT
R827
2R10k
L801
TPW2067AS
L802
TPW2068AS
SR81
DLS5D1-O(M) 0.15W
D852
1SS133
Q852
2SC2412K
R854
1k
R853
10k
Q851
2SC2412K
C802
AC275V0.22u
C811
250V2200pF
C812
250V2200pF
1 5V1
2 GND
3 POWER_SIG
4 PROTECT
P813A
PLUG_2mm_4P\B4B-PH-K-S
T802
OPEN
SHORT
SHORT
SHORT
SHORT
GJ89
GJ90
GJ87
GJ88
R856
1k
R851
1k
R852
470
Q853
2SA1162-Y
R850
100
Q854
2SC2412K
R855
470
Q855
2SC2412K
C852
B1000p
R857
470
R859
1k
R858
470
C851
10V1u
T801
TRF3252AD
R801
VR37 225J
R899
RN14A1A825J
GAP
P805B
OPEN
D899
INR15G471K
C801
AC275V0.22u
NEUTRAL
LINE
F801A FUSE HOLDER
F801B FUSE HOLDER
F801
125V 8A
P800
Lock 2P_11.88mm_S
LIVE AREA

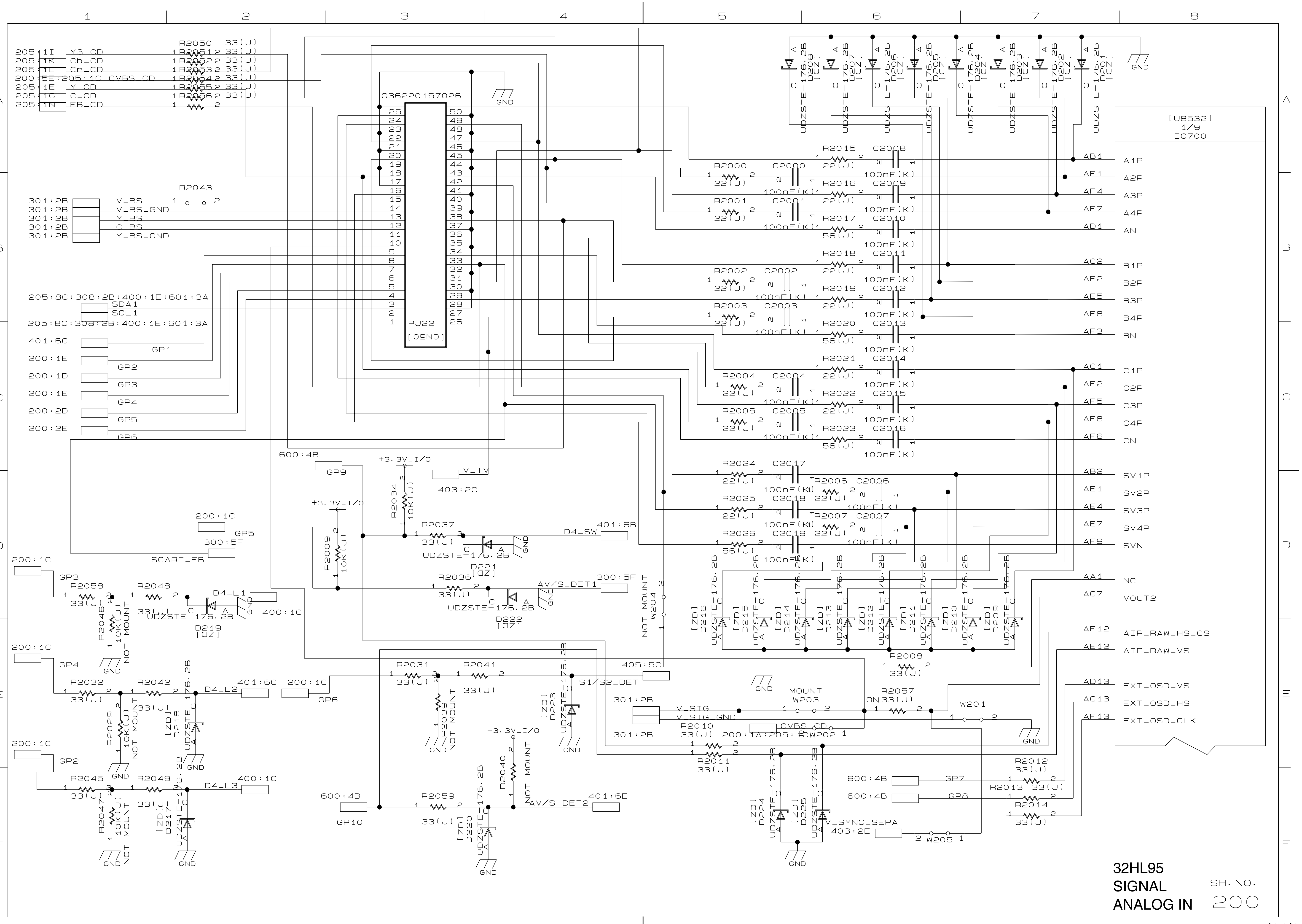
32HL95
AC_INPUT

OTHER PARTS

- ✳ U112A PWB PD2190
- ✳ N901 SOLDER CREAM
- ✳ N902 SOLDER LINE
- ✳ N903 SOLDER BAR
- ✳ N904 FLUX
- ✳ N905 SOLDER THREAD 1.0
- ✳ N906 ADHESIVE
- ✳ N907 SOLVENT IPA


OOB OUT
DIGITAL TUNER
H003
RSU143
ANT_1
ANT_2
9V
SELECT 2
GND
SELECT 1
GR114
SHORT
GR612
SHORT
GR112
SHORT
GR613
SHORT
GR113
SHORT
⚠
H001
ENG36A36GF
TIF Type : Horizontal
1.5V (RECEIVING THE SIGNAL)
2.9V (NO SIGTNAL)
NC
NC
GND
32V
VT
GND
5V
AGC
SDA
SCL
AFT
AGC OUT
VIDEO OUT
GND
NC
SIF OUT
GND
5V
IF
NC
TUNER-GND
32.6
4.86
C153
B50V0.01
C150
16V470
C151
B50V0.01
C152
B50V0.01
GND
GND
C110
OPEN
C111
OPEN
C103
B1000p
C112
OPEN
C101
OPEN
C113
OPEN
C107
OPEN
C114
OPEN
C115
OPEN
C116
OPEN
C117
OPEN
C118
OPEN
C119
OPEN
L190
OPEN
GR04
CHIP_JP
C190
OPEN
C161
B1000p
C104
50V4.7uF
C102
10V470
D101
OPEN
R151
OPEN
L151
TEM2121M
L152
TEM2121M
R152
OPEN
R165
3.9k
Q161
2SC4081-Q
C164
0.1uF
R167
100
C162
100p
SIF
R166
4.7k
R161
1k
R168
100
R110
6.8k
PJ23B
W-B PHD 16P PLUG TOP
TO IF BOARD
32V
GND
GND
5V2
GND
SCL1
SDA1
GND_V_TV
V_TV
GND
GND
SIF
32V
SYS_SW2
SYS_SW1
L103
TEM2121M
L102
TEM2121M
L101
TLN3278D
GR01
OPEN
L110
OPEN
GR05
CHIP_JP
C105
10V470
R108
CHIP_JP
R107
CHIP_JP
SDA1
SCL1
SDA1
SCL1
C109
OPEN
R112
OPEN
R115
OPEN
R113
OPEN
R111
OPEN
Q102
OPEN
R114
CHIP_JP
TP-12
PK05
OPEN
GR02
CHIP_JP
V_TV
GND_V_TV
GR03
CHIP_JP
L105
TEM2028AA
Q101
2SC4081-Q
R103
100
R104
10k
R105
27k
AFT1

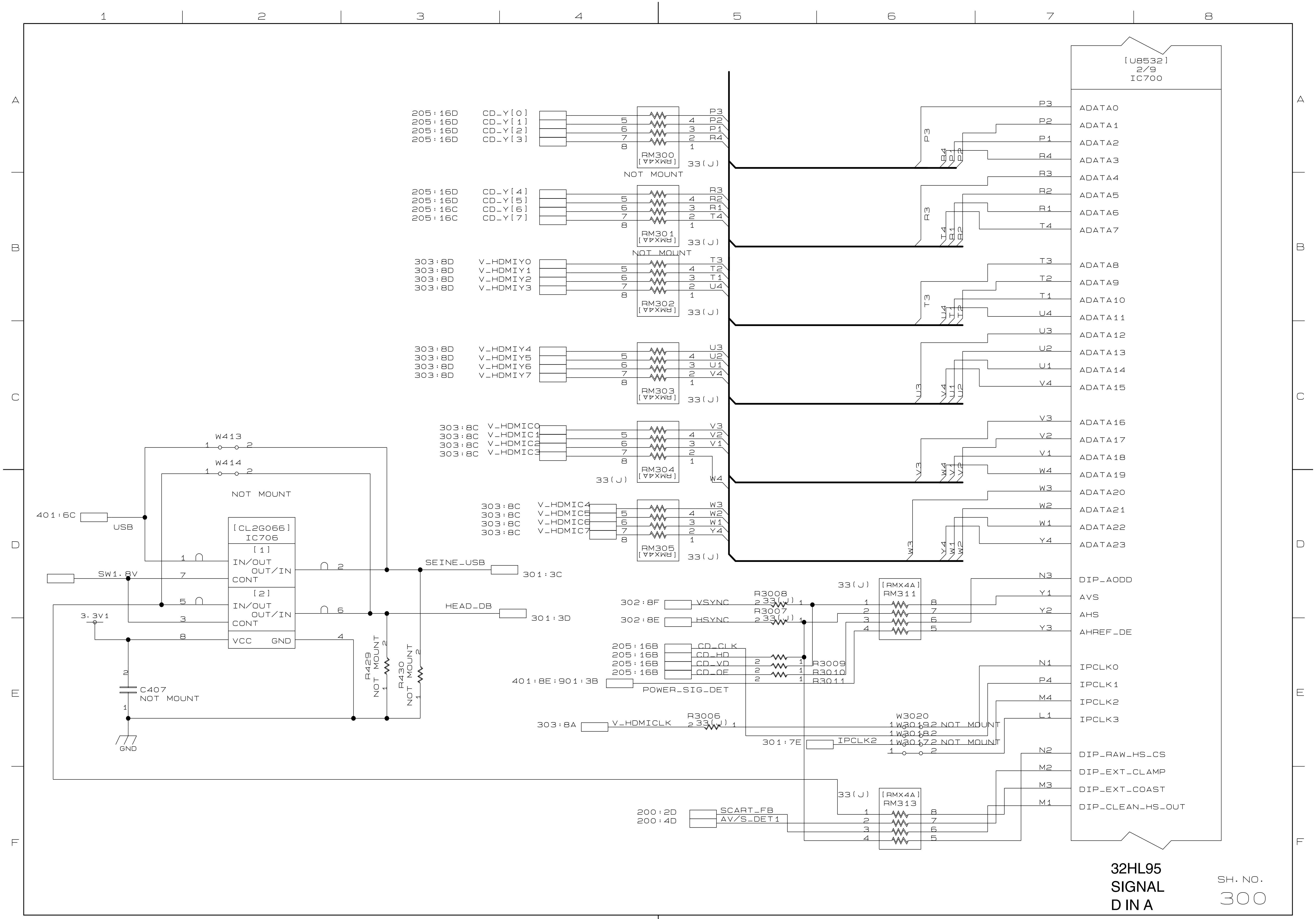
32HL95
RF-SW & TIF



205:1I Y3_CD
205:1K Cb_CD
205:1L Cr_CD
200:5E:205:1C CVBS_CD
205:1E Y_CD
205:1G C_CD
205:1N FB_CD
R2050 33(J)
R2051 33(J)
R2052 33(J)
R2053 33(J)
R2054 33(J)
R2055 33(J)
R2056 33(J)
G36220157026
PJ22
[CN50]
GND
301:2B V_BS
301:2B V_BS_GND
301:2B Y_BS
301:2B C_BS
301:2B Y_BS_GND
R2043
205:8C:308:2B:400:1E:601:3A
SDA1
SCL1
401:6C GP1
200:1E GP2
200:1D GP3
200:1E GP4
200:2D GP5
200:2E GP6
600:4B GP9
+3.3V_I/O
V_TV
403:2C
R2034 10K(J)
R2037 33(J)
D221 [DZ] UDZSTE-176.2B
D4_SW 401:6B
R2009 10K(J)
R2036 33(J)
D222 [DZ] UDZSTE-176.2B
AV/S_DET1 300:5F
200:1C GP5
300:5F SCART_FB
200:1C GP3
R2058 33(J)
R2048 33(J)
R2046 10K(J) NOT MOUNT
D4_L1 400:1C
D219 [DZ] UDZSTE-176.2B
200:1C GP4
R2032 33(J)
R2042 33(J)
R2029 10K(J) NOT MOUNT
[ZD] D218 UDZSTE-176.2B
D4_L2 401:6C
200:1C GP6
200:1C GP2
R2045 33(J)
R2049 33(J)
R2047 10K(J) NOT MOUNT
[ZD] D217 UDZSTE-176.2B
D4_L3 400:1C
600:4B GP10
R2031 33(J)
R2041 33(J)
R2039 NOT MOUNT
[ZD] D223 UDZSTE-176.2B
S1/S2_DET 405:5C
R2059 33(J)
R2040 NOT MOUNT
[ZD] D220 UDZSTE-176.2B
AV/S_DET2 401:6E
NOT MOUNT W204
D208 D207 D206 D205 D204 D203 D202 D201 [DZ] UDZSTE-176.2B
[U8532] 1/9 IC700
R2015 22(J) C2008 100nF(K)
R2000 22(J) C2000 100nF(K)
R2016 22(J) C2009 100nF(K)
R2001 22(J) C2001 100nF(K)
R2017 56(J) C2010 100nF(K)
R2018 22(J) C2011 100nF(K)
R2002 22(J) C2002 100nF(K)
R2019 22(J) C2012 100nF(K)
R2003 22(J) C2003 100nF(K)
R2020 56(J) C2013 100nF(K)
R2021 22(J) C2014 100nF(K)
R2004 22(J) C2004 100nF(K)
R2022 22(J) C2015 100nF(K)
R2005 22(J) C2005 100nF(K)
R2023 56(J) C2016 100nF(K)
R2024 22(J) C2017 100nF(K)
R2006 22(J) C2006 100nF(K)
R2025 22(J) C2018 100nF(K)
R2007 22(J) C2007 100nF(K)
R2026 56(J) C2019 100nF(K)
AB1 A1P
AF1 A2P
AF4 A3P
AF7 A4P
AD1 AN
AC2 B1P
AE2 B2P
AE5 B3P
AE8 B4P
AF3 BN
AC1 C1P
AF2 C2P
AF5 C3P
AF8 C4P
AF6 CN
AB2 SV1P
AE1 SV2P
AE4 SV3P
AE7 SV4P
AF9 SVN
AA1 NC
AC7 VOUT2
AF12 AIP_RAW_HS_CS
AE12 AIP_RAW_VS
AD13 EXT_OSD_VS
AC13 EXT_OSD_HS
AF13 EXT_OSD_CLK
[ZD] D216 D215 D214 D213 D212 D211 D210 D209 UDZSTE-176.2B
R2008 33(J)
MOUNT W203
R2057 ON 33(J)
W201
301:2B V_SIG
V_SIG_GND
R2010 33(J)
CVBS_CD 200:1A:205:1C W202
R2011 33(J)
[ZD] D224 D225 UDZSTE-176.2B
600:4B GP7
600:4B GP8
R2012 33(J)
R2013 33(J)
R2014 33(J)
V_SYNC_SEPA 403:2E
W205

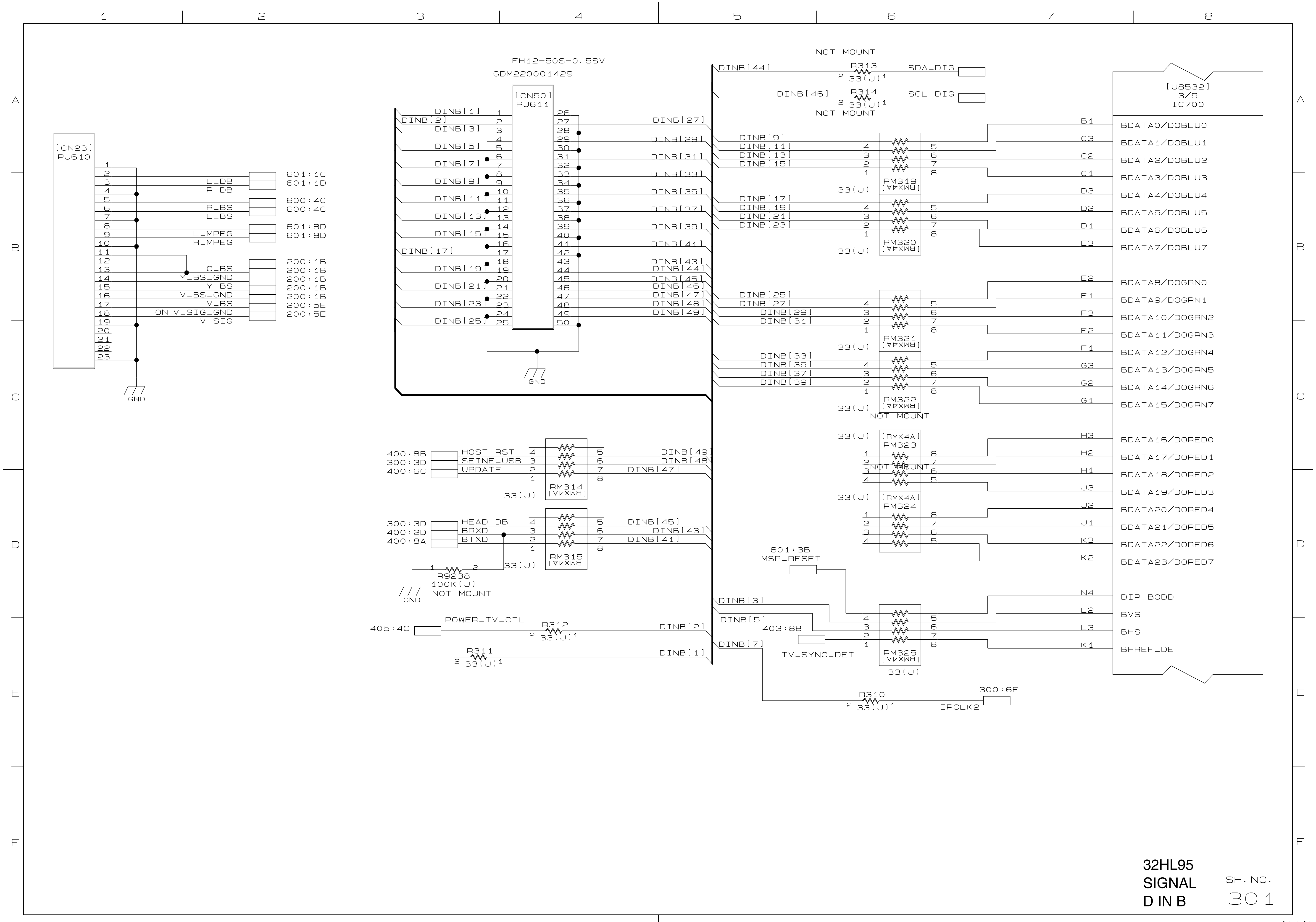
32HL95
SIGNAL
ANALOG IN

SH. NO.
200


[U8532]
2/9
IC700
ADATA0
ADATA1
ADATA2
ADATA3
ADATA4
ADATA5
ADATA6
ADATA7
ADATA8
ADATA9
ADATA10
ADATA11
ADATA12
ADATA13
ADATA14
ADATA15
ADATA16
ADATA17
ADATA18
ADATA19
ADATA20
ADATA21
ADATA22
ADATA23
DIP_AODD
AVS
AHS
AHREF_DE
IPCLK0
IPCLK1
IPCLK2
IPCLK3
DIP_RAW_HS_CS
DIP_EXT_CLAMP
DIP_EXT_COAST
DIP_CLEAN_HS_OUT
205:16D CD_Y[0]
205:16D CD_Y[1]
205:16D CD_Y[2]
205:16D CD_Y[3]
RM300 [RMX4A] 33(J)
NOT MOUNT
205:16D CD_Y[4]
205:16D CD_Y[5]
205:16C CD_Y[6]
205:16C CD_Y[7]
RM301 [RMX4A] 33(J)
NOT MOUNT
303:8D V_HDMIY0
303:8D V_HDMIY1
303:8D V_HDMIY2
303:8D V_HDMIY3
RM302 [RMX4A] 33(J)
303:8D V_HDMIY4
303:8D V_HDMIY5
303:8D V_HDMIY6
303:8D V_HDMIY7
RM303 [RMX4A] 33(J)
303:8C V_HDMIC0
303:8C V_HDMIC1
303:8C V_HDMIC2
303:8C V_HDMIC3
RM304 [RMX4A] 33(J)
303:8C V_HDMIC4
303:8C V_HDMIC5
303:8C V_HDMIC6
303:8C V_HDMIC7
RM305 [RMX4A] 33(J)
W413
W414
NOT MOUNT
401:6C USB
[CL2G066]
IC706
[1]
IN/OUT
OUT/IN
CONT
[2]
IN/OUT
OUT/IN
CONT
VCC GND
SW1.8V
3.3V1
C407
NOT MOUNT
GND
SEINE_USB 301:3C
HEAD_DB 301:3D
R429 NOT MOUNT
R430 NOT MOUNT
302:8F VSYNC
302:8E HSYNC
R3008 33(J)
R3007 33(J)
[RMX4A] RM311 33(J)
205:16B CD_CLK
205:16B CD_HD
205:16B CD_VD
205:16B CD_OE
R3009
R3010
R3011
401:8E:901:3B POWER_SIG_DET
303:8A V_HDMICLK
R3006 33(J)
W3020
W3019 NOT MOUNT
W3018
W3017 NOT MOUNT
301:7E IPCLK2
[RMX4A] RM313 33(J)
200:2D SCART_FB
200:4D AV/S_DET1

32HL95
SIGNAL
D IN A

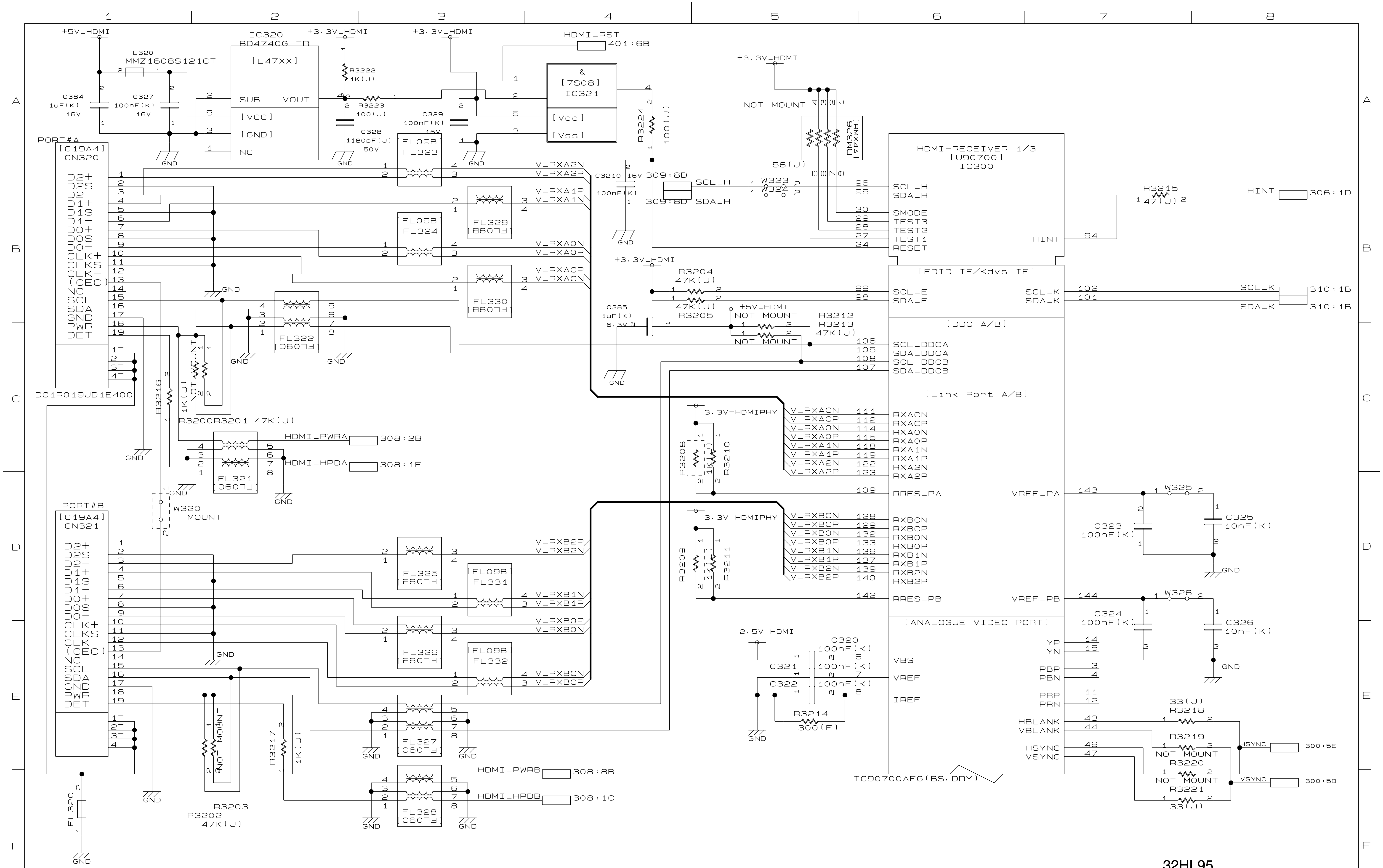
SH. NO.
300


[CN23]
PJ610
L_DB
R_DB
R_BS
L_BS
L_MPEG
R_MPEG
C_BS
Y_BS_GND
Y_BS
V_BS_GND
V_BS
ON V_SIG_GND
V_SIG
601:1C
601:1D
600:4C
600:4C
601:8D
601:8D
200:1B
200:5E
GND
FH12-50S-0.5SV
GDM220001429
[CN50]
PJ611
DINB[1]
DINB[2]
DINB[3]
DINB[5]
DINB[7]
DINB[9]
DINB[11]
DINB[13]
DINB[15]
DINB[17]
DINB[19]
DINB[21]
DINB[23]
DINB[25]
DINB[27]
DINB[29]
DINB[31]
DINB[33]
DINB[35]
DINB[37]
DINB[39]
DINB[41]
DINB[43]
DINB[44]
DINB[45]
DINB[46]
DINB[47]
DINB[48]
DINB[49]
NOT MOUNT
R313
33(J)
SDA_DIG
R314
SCL_DIG
[U8532]
3/9
IC700
RM319
RM320
RM321
RM322
RM323
RM324
RM325
[RMX4A]
BDATA0/DOBLU0
BDATA1/DOBLU1
BDATA2/DOBLU2
BDATA3/DOBLU3
BDATA4/DOBLU4
BDATA5/DOBLU5
BDATA6/DOBLU6
BDATA7/DOBLU7
BDATA8/DOGRN0
BDATA9/DOGRN1
BDATA10/DOGRN2
BDATA11/DOGRN3
BDATA12/DOGRN4
BDATA13/DOGRN5
BDATA14/DOGRN6
BDATA15/DOGRN7
BDATA16/DORED0
BDATA17/DORED1
BDATA18/DORED2
BDATA19/DORED3
BDATA20/DORED4
BDATA21/DORED5
BDATA22/DORED6
BDATA23/DORED7
DIP_BODD
BVS
BHS
BHREF_DE
B1
C3
C2
C1
D3
D2
D1
E3
E2
E1
F3
F2
F1
G3
G2
G1
H3
H2
H1
J3
J2
J1
K3
K2
N4
L2
L3
K1
400:8B
300:3D
400:6C
HOST_RST
SEINE_USB
UPDATE
RM314
300:3D
400:2D
400:8A
HEAD_DB
BRXD
BTXD
RM315
R9238
100K(J)
NOT MOUNT
GND
405:4C
POWER_TV_CTL
R312
R311
601:3B
MSP_RESET
403:8B
TV_SYNC_DET
R310
300:6E
IPCLK2

32HL95
SIGNAL
D IN B

SH. NO.
301

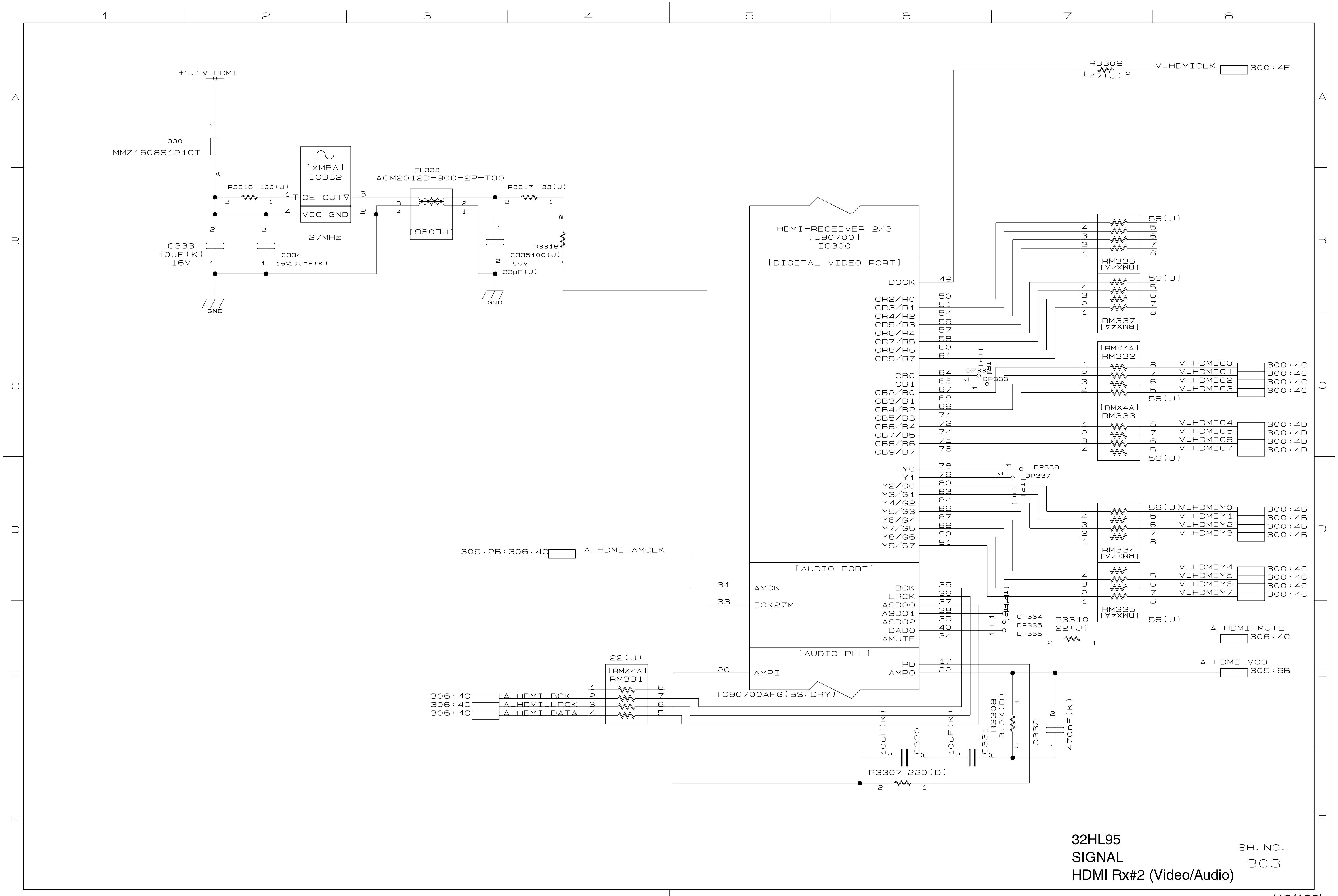
(16/122)


+5V_HDMI
L320
MMZ1608S121CT
C384
1uF(K)
16V
C327
100nF(K)
16V
IC320
BD4740G-TR
[L47XX]
SUB
VOUT
[VCC]
[GND]
NC
+3.3V_HDMI
R3222
1K(J)
R3223
100(J)
C328
1180pF(J)
50V
C329
100nF(K)
16V
HDMI_RST
401:6B
&
[7S08]
IC321
[Vcc]
[Vss]
R3224
100(J)
PORT#A
[C19A4]
CN320
D2+
D2S
D2-
D1+
D1S
D1-
D0+
D0S
D0-
CLK+
CLKS
CLK-
(CEC)
NC
SCL
SDA
GND
PWR
DET
DC1R019JD1E400
[FL09B]
FL323
FL324
FL329
FL330
FL322
FL321
V_RXA2N
V_RXA2P
V_RXA1P
V_RXA1N
V_RXA0N
V_RXA0P
V_RXACP
V_RXACN
R3216
1K(J)
NOT MOUNT
R3200R3201 47K(J)
HDMI_PWRA
308:2B
HDMI_HPDA
308:1E
W320
MOUNT
GND
PORT#B
[C19A4]
CN321
FL325
FL331
FL326
FL332
FL327
FL328
V_RXB2P
V_RXB2N
V_RXB1N
V_RXB1P
V_RXB0P
V_RXB0N
V_RXBCN
V_RXBCP
R3217
1K(J)
R3203
R3202
47K(J)
HDMI_PWRB
308:8B
HDMI_HPDB
308:1C
FL320
NOT MOUNT
RM326
[RM4A]
56(J)
C3210
16V
100nF(K)
309:8D
SCL_H
SDA_H
W323
W324
HDMI-RECEIVER 1/3
[U90700]
IC300
SCL_H
SDA_H
SMODE
TEST3
TEST2
TEST1
RESET
HINT
R3215
47(J)
HINT
306:1D
R3204
47K(J)
R3205
C385
1uF(K)
6.3V
+5V_HDMI
R3212
R3213
47K(J)
[EDID IF/Kdvs IF]
SCL_E
SDA_E
SCL_K
SDA_K
310:1B
[DDC A/B]
SCL_DDCA
SDA_DDCA
SCL_DDCB
SDA_DDCB
[Link Port A/B]
3.3V-HDMIPHY
R3208
R3210
1K(J)
RXACN
RXACP
RXA0N
RXA0P
RXA1N
RXA1P
RXA2N
RXA2P
RRES_PA
VREF_PA
W325
C323
100nF(K)
C325
10nF(K)
R3209
R3211
RXBCN
RXBCP
RXB0N
RXB0P
RXB1N
RXB1P
RXB2N
RXB2P
RRES_PB
VREF_PB
W326
C324
100nF(K)
C326
10nF(K)
[ANALOGUE VIDEO PORT]
2.5V-HDMI
C320
C321
C322
100nF(K)
VBS
VREF
IREF
R3214
300(F)
YP
YN
PBP
PBN
PRP
PRN
HBLANK
VBLANK
HSYNC
VSYNC
R3218
33(J)
R3219
NOT MOUNT
R3220
R3221
HSYNC
300:5E
VSYNC
300:5D
TC90700AFG(BS.DRY)

32HL95
SIGNAL
HDMI (Link,I2C)

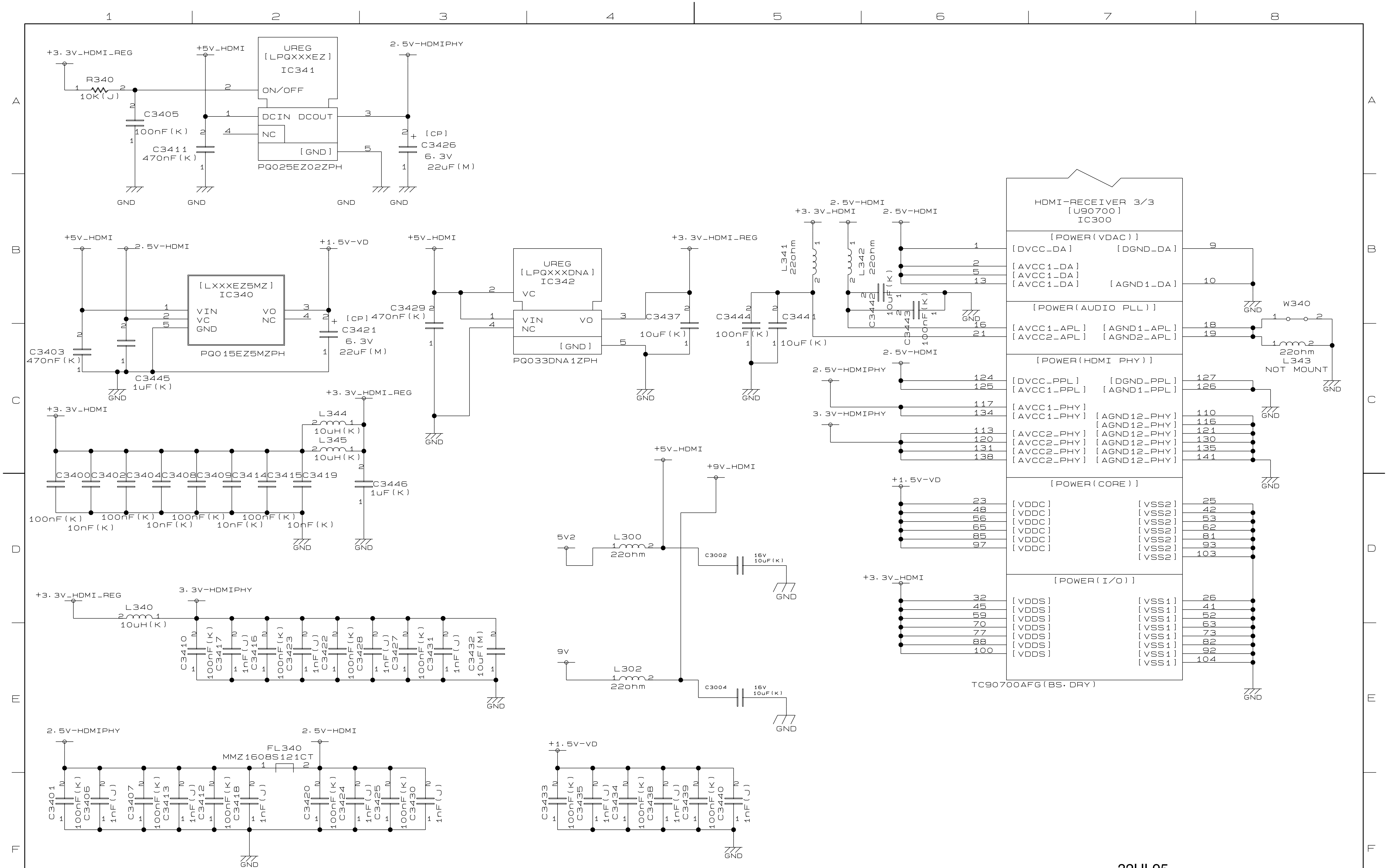
SH. NO.
302

(17/122)


1
2
3
4
5
6
7
8
A
B
C
D
E
F
+3.3V_HDMI
L330
MMZ1608S121CT
R3316 100(J)
[XMBA]
IC332
OE OUT
VCC GND
27MHz
C333
10uF(K)
16V
C334
16V100nF(K)
GND
FL333
ACM2012D-900-2P-T00
[FL098]
R3317 33(J)
R3318
C335100(J)
50V
33pF(J)
GND
R3309
47(J)
V_HDMICLK
300:4E
HDMI-RECEIVER 2/3
[U90700]
IC300
[DIGITAL VIDEO PORT]
DOCK 49
CR2/R0 50
CR3/R1 51
CR4/R2 54
CR5/R3 55
CR6/R4 57
CR7/R5 58
CR8/R6 60
CR9/R7 61
CB0 64
CB1 66
CB2/B0 67
CB3/B1 68
CB4/B2 69
CB5/B3 71
CB6/B4 72
CB7/B5 74
CB8/B6 75
CB9/B7 76
Y0 78
Y1 79
Y2/G0 80
Y3/G1 83
Y4/G2 84
Y5/G3 86
Y6/G4 87
Y7/G5 89
Y8/G6 90
Y9/G7 91
[AUDIO PORT]
AMCK 31
ICK27M 33
BCK 35
LRCK 36
ASDO0 37
ASDO1 38
ASDO2 39
DADO 40
AMUTE 34
[AUDIO PLL]
AMPI 20
PD 17
AMPO 22
TC90700AFG(BS.DRY)
RM336 [RMX4A] 56(J)
RM337 [RMX4A] 56(J)
[RMX4A] RM332 56(J)
[RMX4A] RM333 56(J)
RM334 [RMX4A] 56(J)
RM335 [RMX4A] 56(J)
DP332
DP333
DP338
DP337
DP334
DP335
DP336
[TP]
V_HDMIC0 300:4C
V_HDMIC1 300:4C
V_HDMIC2 300:4C
V_HDMIC3 300:4C
V_HDMIC4 300:4D
V_HDMIC5 300:4D
V_HDMIC6 300:4D
V_HDMIC7 300:4D
V_HDMIY0 300:4B
V_HDMIY1 300:4B
V_HDMIY2 300:4B
V_HDMIY3 300:4B
V_HDMIY4 300:4C
V_HDMIY5 300:4C
V_HDMIY6 300:4C
V_HDMIY7 300:4C
305:2B:306:4C
A_HDMI_AMCLK
R3310
22(J)
A_HDMI_MUTE
306:4C
A_HDMI_VCO
305:6B
22(J)
[RMX4A]
RM331
306:4C A_HDMI_BCK
306:4C A_HDMI_LRCK
306:4C A_HDMI_DATA
C330
10uF(K)
C331
10uF(K)
R3308
3.3K(D)
C332
470nF(K)
R3307 220(D)

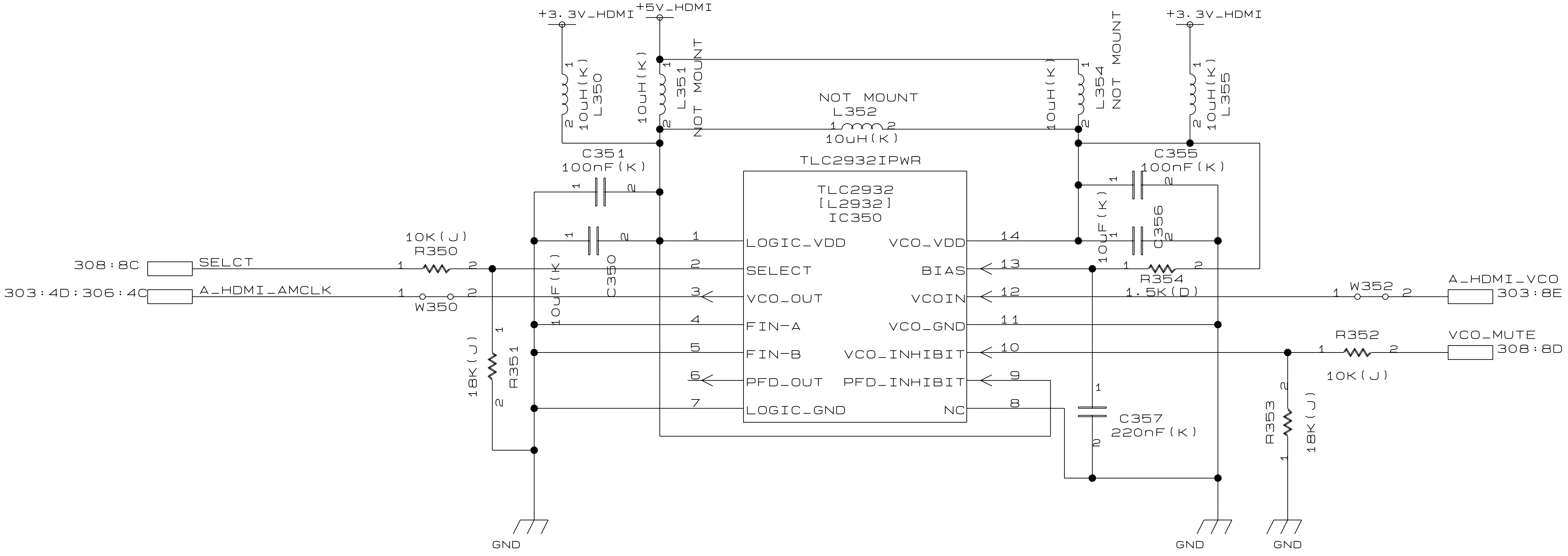
32HL95
SIGNAL
HDMI Rx#2 (Video/Audio)

SH. NO.
303


1
2
3
4
5
6
7
8
A
B
C
D
E
F
+3.3V_HDMI_REG
R340
10K(J)
C3405
100nF(K)
C3411
470nF(K)
+5V_HDMI
UREG
[LPQXXXEZ]
IC341
ON/OFF
DCIN DCOUT
NC
[GND]
PQ025EZ02ZPH
2.5V-HDMIPHY
[CP]
C3426
6.3V
22uF(M)
GND
+5V_HDMI
2.5V-HDMI
+1.5V-VD
[LXXXEZ5MZ]
IC340
VIN
VC
GND
VO
NC
PQ015EZ5MZPH
[CP]
C3421
6.3V
22uF(M)
C3403
470nF(K)
C3445
1uF(K)
+5V_HDMI
C3429
470nF(K)
UREG
[LPQXXXDNA]
IC342
VC
VIN
VO
NC
[GND]
PQ033DNA1ZPH
+3.3V_HDMI_REG
C3437
10uF(K)
C3444
100nF(K)
C3441
10uF(K)
+3.3V_HDMI
2.5V-HDMI
2.5V-HDMI
L341
22ohm
L342
22ohm
C3442
10uF(K)
C3443
100nF(K)
2.5V-HDMI
2.5V-HDMIPHY
3.3V-HDMIPHY
+1.5V-VD
+3.3V_HDMI
HDMI-RECEIVER 3/3
[U90700]
IC300
[POWER(VDAC)]
1 [DVCC_DA] [DGND_DA] 9
2 [AVCC1_DA]
5 [AVCC1_DA]
13 [AVCC1_DA] [AGND1_DA] 10
[POWER(AUDIO PLL)]
16 [AVCC1_APL] [AGND1_APL] 18
21 [AVCC2_APL] [AGND2_APL] 19
[POWER(HDMI PHY)]
124 [DVCC_PPL] [DGND_PPL] 127
125 [AVCC1_PPL] [AGND1_PPL] 126
117 [AVCC1_PHY]
134 [AVCC1_PHY] [AGND12_PHY] 110
[AGND12_PHY] 116
113 [AVCC2_PHY] [AGND12_PHY] 121
120 [AVCC2_PHY] [AGND12_PHY] 130
131 [AVCC2_PHY] [AGND12_PHY] 135
138 [AVCC2_PHY] [AGND12_PHY] 141
[POWER(CORE)]
23 [VDDC] [VSS2] 25
48 [VDDC] [VSS2] 42
56 [VDDC] [VSS2] 53
65 [VDDC] [VSS2] 62
85 [VDDC] [VSS2] 81
97 [VDDC] [VSS2] 93
[VSS2] 103
[POWER(I/O)]
32 [VDDS] [VSS1] 26
45 [VDDS] [VSS1] 41
59 [VDDS] [VSS1] 52
70 [VDDS] [VSS1] 63
77 [VDDS] [VSS1] 73
88 [VDDS] [VSS1] 82
100 [VDDS] [VSS1] 92
[VSS1] 104
TC90700AFG(BS.DRY)
W340
22ohm
L343
NOT MOUNT
+3.3V_HDMI
+3.3V_HDMI_REG
L344
10uH(K)
L345
10uH(K)
C3400
C3402
C3404
C3408
C3409
C3414
C3415
C3419
100nF(K)
10nF(K)
100nF(K)
10nF(K)
100nF(K)
10nF(K)
100nF(K)
10nF(K)
C3446
1uF(K)
+5V_HDMI
+9V_HDMI
5V2
L300
22ohm
C3002
16V
10uF(K)
9V
L302
22ohm
C3004
16V
10uF(K)
+3.3V_HDMI_REG
L340
10uH(K)
3.3V-HDMIPHY
C3410
100nF(K)
C3417
1nF(J)
C3416
100nF(K)
C3423
1nF(J)
C3422
100nF(K)
C3428
1nF(J)
C3427
100nF(K)
C3431
1nF(J)
C3432
10uF(M)
2.5V-HDMIPHY
2.5V-HDMI
FL340
MMZ1608S121CT
C3401
100nF(K)
C3406
1nF(J)
C3407
100nF(K)
C3413
1nF(J)
C3412
100nF(K)
C3418
1nF(J)
C3420
100nF(K)
C3424
1nF(J)
C3425
100nF(K)
C3430
1nF(J)
+1.5V-VD
C3433
100nF(K)
C3435
1nF(J)
C3434
100nF(K)
C3438
1nF(J)
C3439
100nF(K)
C3440
1nF(J)

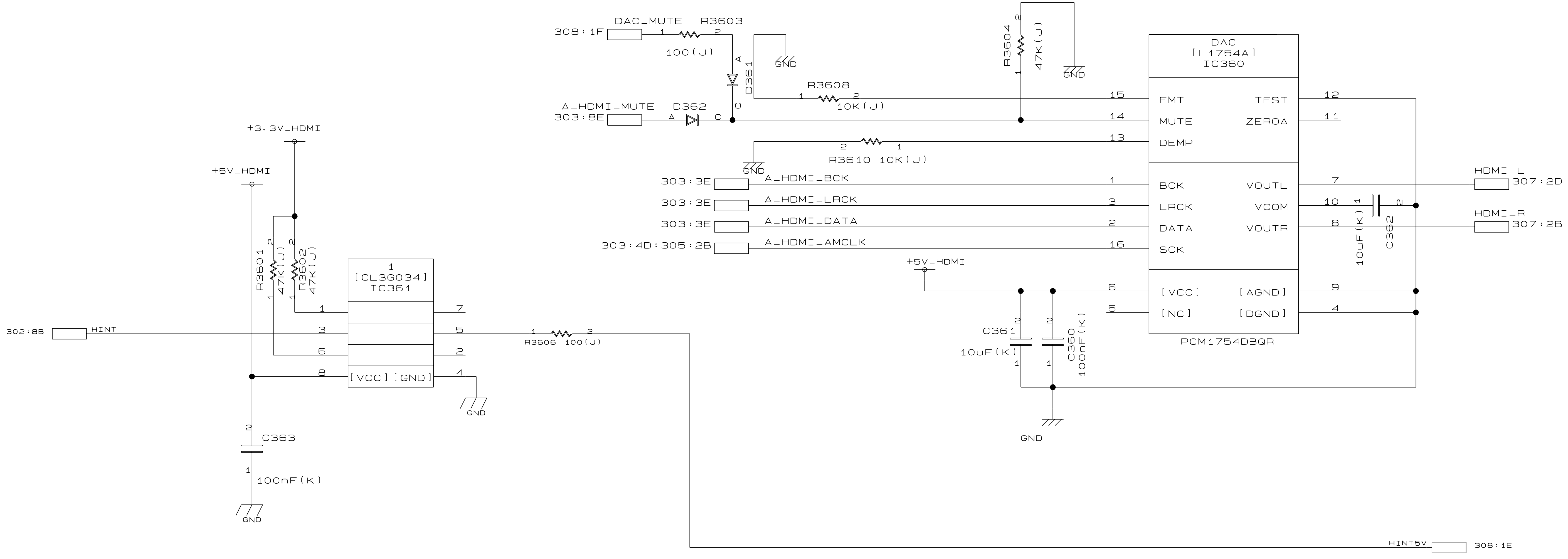
32HL95
SIGNAL
HDMI Rx#3 (PWR,Audio)

SH. NO.
304


+3.3V_HDMI
+5V_HDMI
+3.3V_HDMI
L350
10uH(K)
L351
10uH(K)
NOT MOUNT
NOT MOUNT
L352
10uH(K)
L354
10uH(K)
NOT MOUNT
L355
10uH(K)
TLC2932IPWR
TLC2932
[L2932]
IC350
C351
100nF(K)
C350
10uF(K)
C355
100nF(K)
C356
10uF(K)
C357
220nF(K)
R350
10K(J)
R351
18K(J)
R352
10K(J)
R353
18K(J)
R354
1.5K(D)
W350
W352
308:8C
SELCT
303:4D:306:4C
A_HDMI_AMCLK
A_HDMI_VCO
303:8E
VCO_MUTE
308:8D
1 LOGIC_VDD
2 SELECT
3 VCO_OUT
4 FIN-A
5 FIN-B
6 PFD_OUT
7 LOGIC_GND
14 VCO_VDD
13 BIAS
12 VCOIN
11 VCO_GND
10 VCO_INHIBIT
9 PFD_INHIBIT
8 NC
GND
GND
GND

32HL95
SIGNAL
HDMI AUDIO PLL

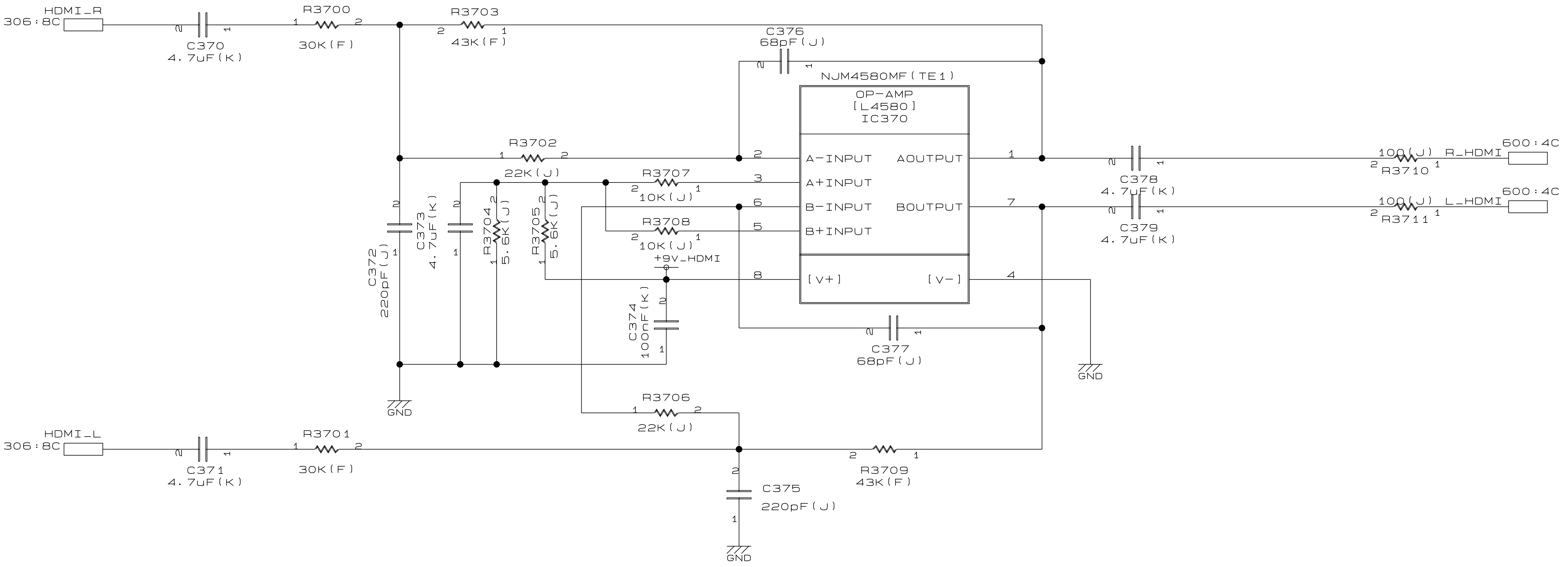
SH. NO.
305


DAC_MUTE
308:1F
R3603
100(J)
D361
A
C
GND
R3608
10K(J)
A_HDMI_MUTE
303:8E
D362
R3604
47K(J)
R3610 10K(J)
DAC
[L1754A]
IC360
FMT
MUTE
DEMP
BCK
LRCK
DATA
SCK
TEST
ZEROA
VOUTL
VCOM
VOUTR
[VCC]
[NC]
[AGND]
[DGND]
PCM1754DBQR
303:3E
A_HDMI_BCK
A_HDMI_LRCK
A_HDMI_DATA
303:4D:305:2B
A_HDMI_AMCLK
HDMI_L
307:2D
HDMI_R
307:2B
C362
10uF(K)
+5V_HDMI
C361
10uF(K)
C360
100nF(K)
+3.3V_HDMI
R3601
47K(J)
R3602
47K(J)
[CL3G034]
IC361
[VCC] [GND]
302:8B
HINT
R3606 100(J)
C363
100nF(K)
HINT5V
308:1E

32HL95
SIGNAL
HDMI AUDIO DAC

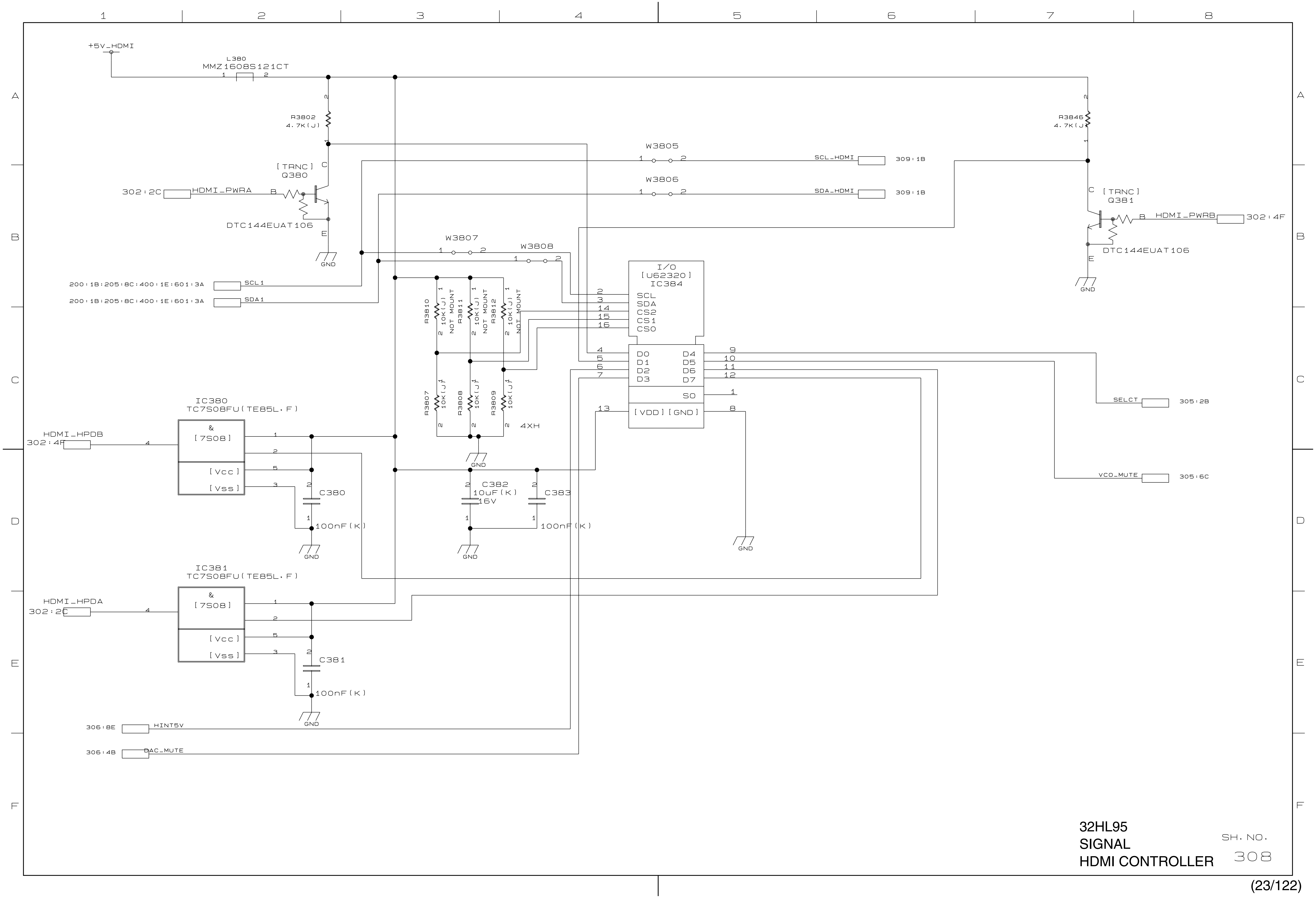
SH. NO.
306

(21/122)


306:8C
HDMI_R
C370
4.7uF(K)
R3700
30K(F)
R3703
43K(F)
C376
68pF(J)
NJM4580MF(TE1)
OP-AMP
[L4580]
IC370
R3702
22K(J)
R3707
10K(J)
R3708
10K(J)
A-INPUT
A+INPUT
B-INPUT
B+INPUT
AOUTPUT
BOUTPUT
[V+]
[V-]
C372
220pF(J)
C373
4.7uF(K)
R3704
5.6K(J)
R3705
5.6K(J)
+9V_HDMI
C374
100nF(K)
C377
68pF(J)
GND
R3706
22K(J)
306:8C
HDMI_L
C371
4.7uF(K)
R3701
30K(F)
C375
220pF(J)
R3709
43K(F)
C378
4.7uF(K)
C379
4.7uF(K)
100(J)
R3710
R_HDMI
600:4C
100(J)
R3711
L_HDMI
600:4C

32HL95
SIGNAL
HDMI AUDIO OUT

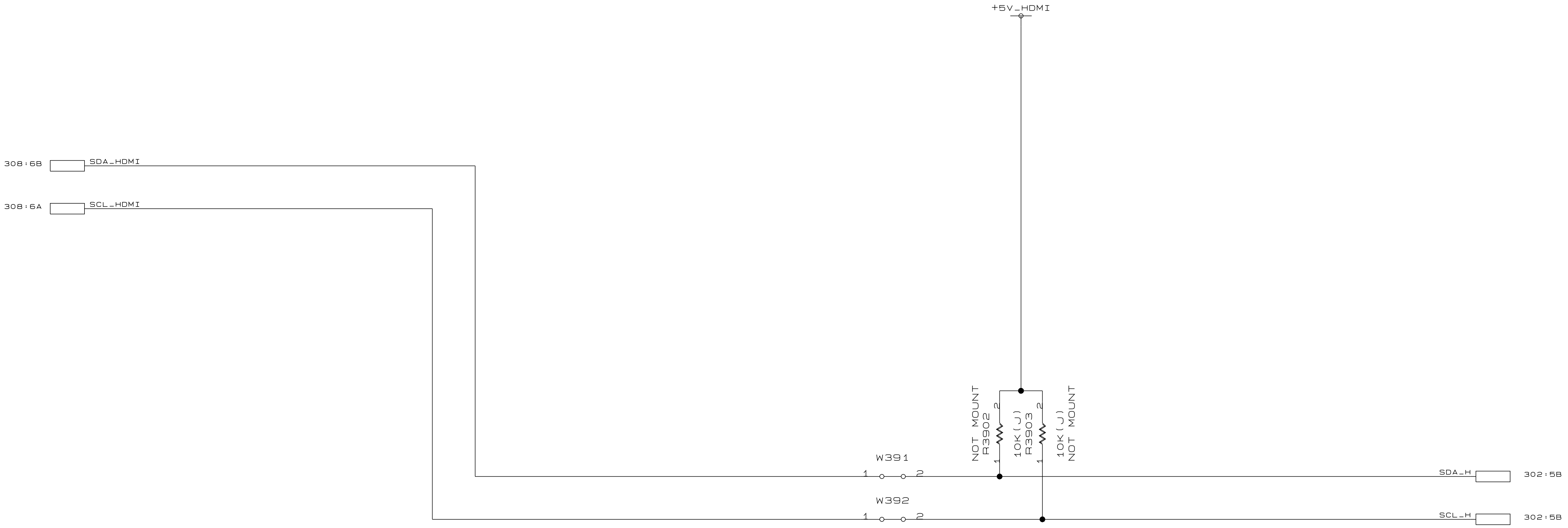
SH. NO.
307



1
2
3
4
5
6
7
8
A
B
C
D
E
F
+5V_HDMI
L380
MMZ1608S121CT
R3802
4.7K(J)
[TRNC]
Q380
302:2C
HDMI_PWRA
DTC144EUAT106
GND
W3805
SCL_HDMI
309:1B
W3806
SDA_HDMI
309:1B
R3846
4.7K(J)
[TRNC]
Q381
HDMI_PWRB
302:4F
DTC144EUAT106
W3807
W3808
200:1B:205:8C:400:1E:601:3A
SCL1
200:1B:205:8C:400:1E:601:3A
SDA1
R3810
10K(J)
NOT MOUNT
R3811
10K(J)
NOT MOUNT
R3812
10K(J)
NOT MOUNT
R3807
10K(J)
R3808
10K(J)
R3809
10K(J)
4XH
I/O
[U62320]
IC384
SCL
SDA
CS2
CS1
CS0
D0
D1
D2
D3
D4
D5
D6
D7
S0
[VDD] [GND]
SELCT
305:2B
VCO_MUTE
305:6C
IC380
TC7S08FU(TE85L.F)
&
[7S08]
[Vcc]
[Vss]
HDMI_HPDB
302:4F
C380
100nF(K)
C382
10uF(K)
16V
C383
100nF(K)
IC381
TC7S08FU(TE85L.F)
&
[7S08]
[Vcc]
[Vss]
HDMI_HPDA
302:2C
C381
100nF(K)
306:8E
HINT5V
306:4B
DAC_MUTE

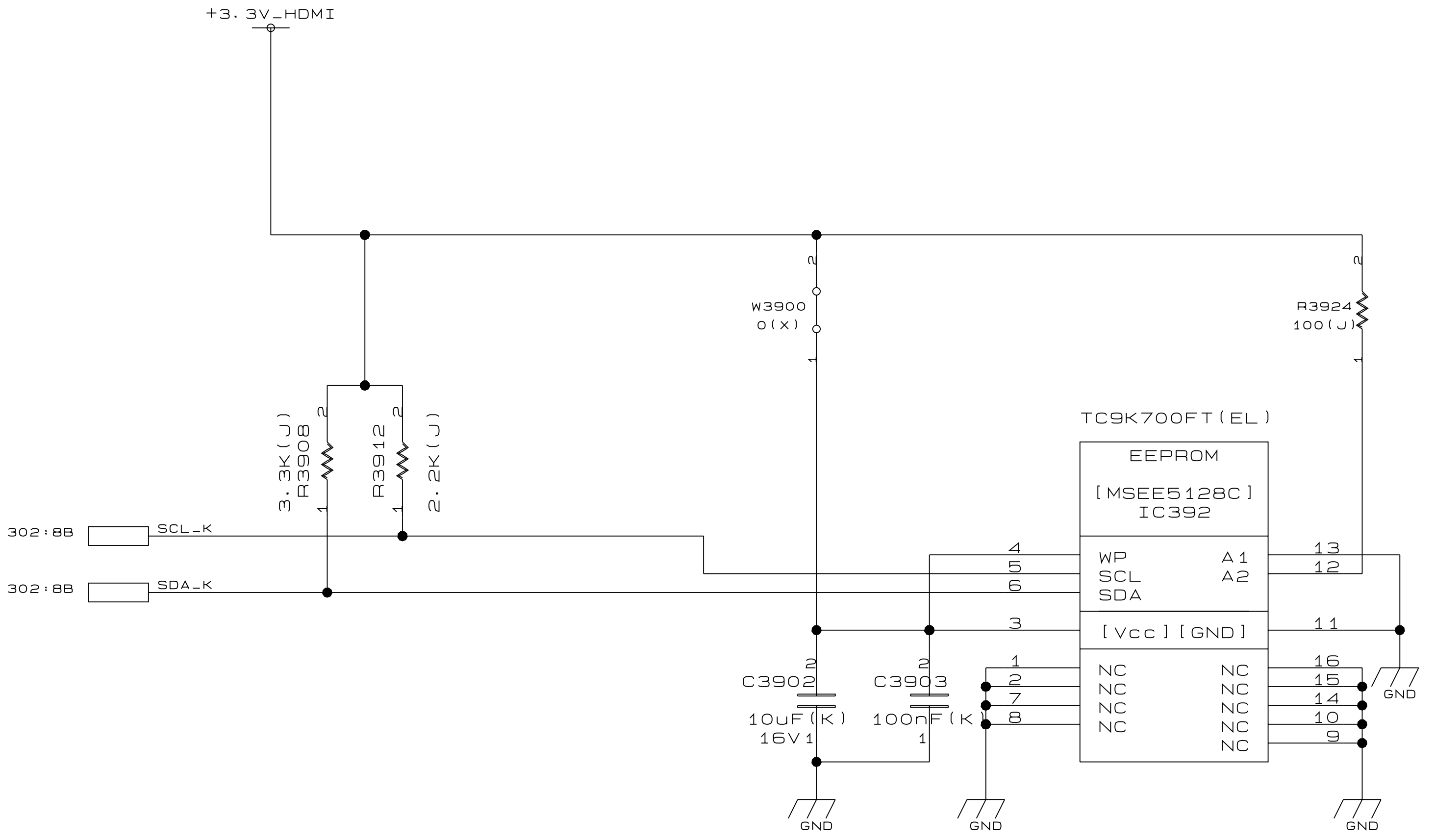
32HL95
SIGNAL
HDMI CONTROLLER

SH. NO.
308


+5V_HDMI
308:6B
SDA_HDMI
308:6A
SCL_HDMI
NOT MOUNT
R3902
10K(J)
R3903
10K(J)
NOT MOUNT
W391
1
2
W392
1
2
SDA_H
302:5B
SCL_H
302:5B

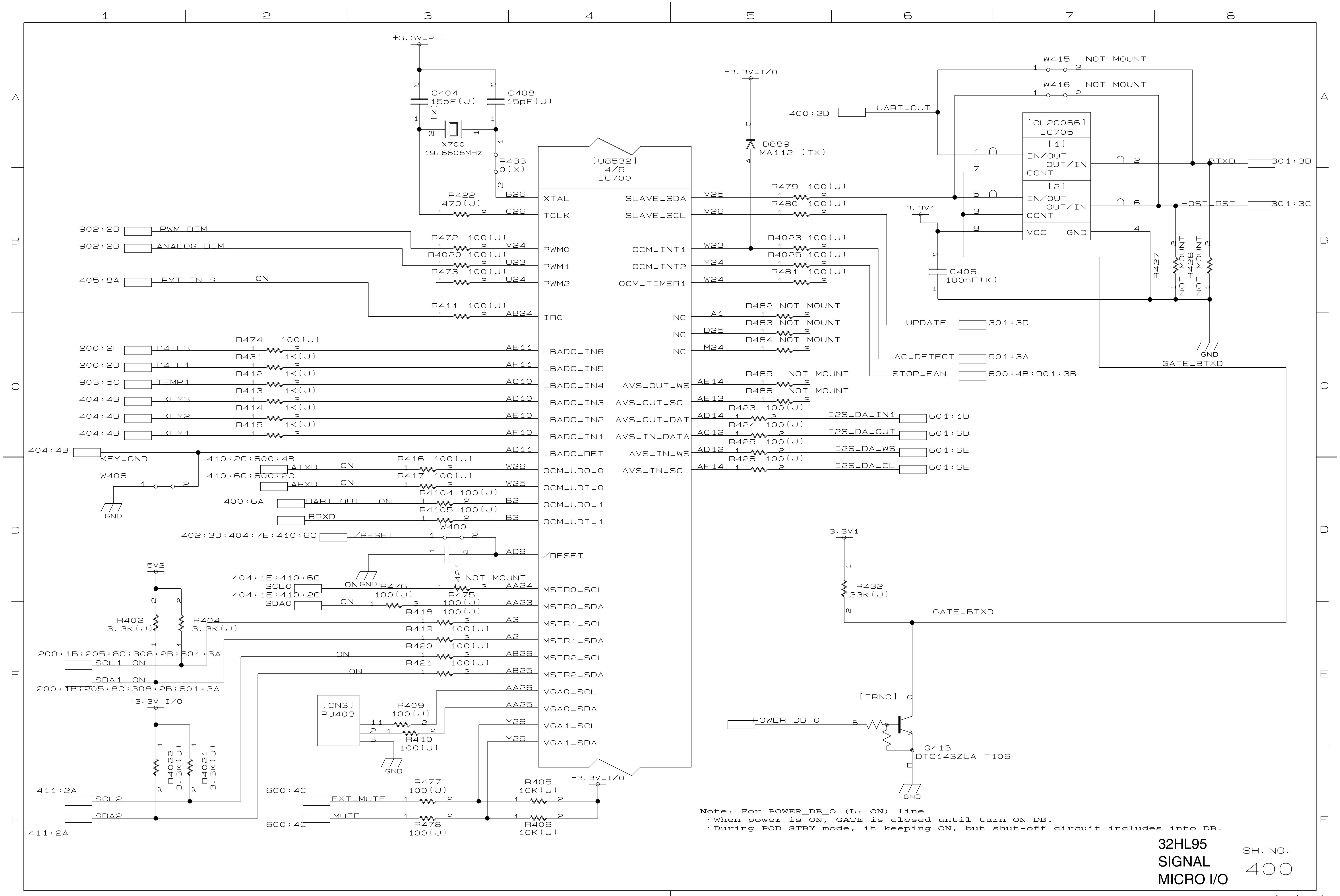
32HL95
SIGNAL
EEPROM1

SH. NO.
309


+3.3V_HDMI
W3900
0(X)
R3924
100(J)
3.3K(J)
R3908
R3912
2.2K(J)
TC9K700FT(EL)
EEPROM
[MSEE5128C]
IC392
302:8B
SCL_K
302:8B
SDA_K
4
5
6
WP
SCL
SDA
A1
A2
13
12
3
[Vcc] [GND]
11
1
2
7
8
NC
NC
NC
NC
NC
NC
NC
NC
NC
16
15
14
10
9
C3902
10uF(K)
16V
C3903
100nF(K)
GND
GND
GND
GND

32HL95
SIGNAL
EEPROM2

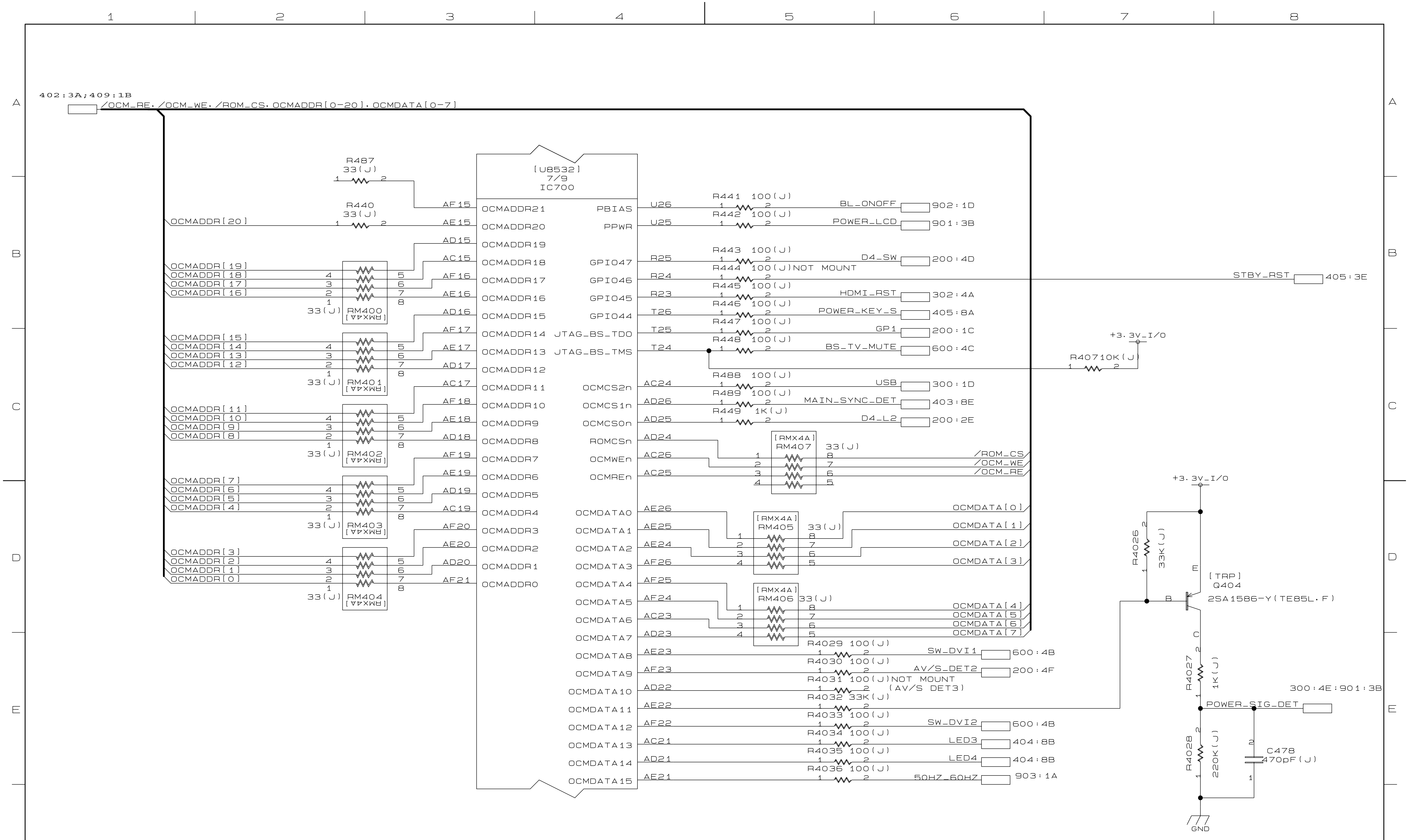
SH. NO.
310


1
2
3
4
5
6
7
8
A
B
C
D
E
F
+3.3V_PLL
C404
15pF(J)
C408
15pF(J)
X700
19.6608MHz
R433
0(X)
R422
470(J)
B26
C26
[U8532]
4/9
IC700
XTAL
TCLK
PWM0
PWM1
PWM2
IR0
LBADC_IN6
LBADC_IN5
LBADC_IN4
LBADC_IN3
LBADC_IN2
LBADC_IN1
LBADC_RET
OCM_UDO_0
OCM_UDI_0
OCM_UDO_1
OCM_UDI_1
/RESET
MSTR0_SCL
MSTR0_SDA
MSTR1_SCL
MSTR1_SDA
MSTR2_SCL
MSTR2_SDA
VGA0_SCL
VGA0_SDA
VGA1_SCL
VGA1_SDA
SLAVE_SDA
SLAVE_SCL
OCM_INT1
OCM_INT2
OCM_TIMER1
NC
AVS_OUT_WS
AVS_OUT_SCL
AVS_OUT_DAT
AVS_IN_DATA
AVS_IN_WS
AVS_IN_SCL
902:2B PWM_DIM
902:2B ANALOG_DIM
405:8A RMT_IN_S ON
R472 100(J) V24
R4020 100(J) U23
R473 100(J) U24
R411 100(J) AB24
200:2F D4_L3
200:2D D4_L1
903:5C TEMP1
404:4B KEY3
404:4B KEY2
404:4B KEY1
404:4B KEY_GND
R474 100(J) AE11
R431 1K(J) AF11
R412 1K(J) AC10
R413 1K(J) AD10
R414 1K(J) AE10
R415 1K(J) AF10
AD11
W406
GND
410:2C:600:4B ATXD ON
410:6C:600:2C ARXD ON
R416 100(J) W26
R417 100(J) W25
400:6A UART_OUT ON
R4104 100(J) B2
BRXD
R4105 100(J) B3
W400
402:3D:404:7E:410:6C /RESET
AD9
C421 NOT MOUNT
404:1E:410:6C SCL0
404:1E:410:2C SDA0
R476 100(J)
R475 100(J) AA24
AA23
R418 100(J) A3
R419 100(J) A2
R420 100(J) AB26
R421 100(J) AB25
AA26
AA25
Y26
Y25
5V2
R402 3.3K(J)
R404 3.3K(J)
200:1B:205:8C:308:2B:601:3A SCL1 ON
200:1B:205:8C:308:2B:601:3A SDA1 ON
+3.3V_I/O
R4022 3.3K(J)
R4021 3.3K(J)
411:2A SCL2
411:2A SDA2
[CN3]
PJ403
R409 100(J)
R410 100(J)
600:4C EXT_MUTE
600:4C MUTE
R477 100(J)
R478 100(J)
R405 10K(J)
R406 10K(J)
+3.3V_I/O
D889
MA112-(TX)
V25
V26
W23
Y24
W24
R479 100(J)
R480 100(J)
R4023 100(J)
R4025 100(J)
R481 100(J)
A1 R482 NOT MOUNT
D25 R483 NOT MOUNT
M24 R484 NOT MOUNT
AE14 R485 NOT MOUNT
AE13 R486 NOT MOUNT
AD14 R423 100(J) I2S_DA_IN1 601:1D
AC12 R424 100(J) I2S_DA_OUT 601:6D
AD12 R425 100(J) I2S_DA_WS 601:6E
AF14 R426 100(J) I2S_DA_CL 601:6E
UPDATE 301:3D
AC_DETECT 901:3A
STOP_FAN 600:4B:901:3B
400:2D UART_OUT
W415 NOT MOUNT
W416 NOT MOUNT
[CL2G066]
IC705
[1]
IN/OUT
OUT/IN
CONT
[2]
IN/OUT
OUT/IN
CONT
VCC
GND
BTXD 301:3D
HOST_RST 301:3C
3.3V1
C406
100nF(K)
R427
R428
NOT MOUNT
NOT MOUNT
GATE_BTXD
3.3V1
R432
33K(J)
GATE_BTXD
[TRNC]
POWER_DB_O
Q413
DTC143ZUA T106
GND

Note: For POWER_DB_O (L: ON) line
・When power is ON, GATE is closed until turn ON DB.
・During POD STBY mode, it keeping ON, but shut-off circuit includes into DB.

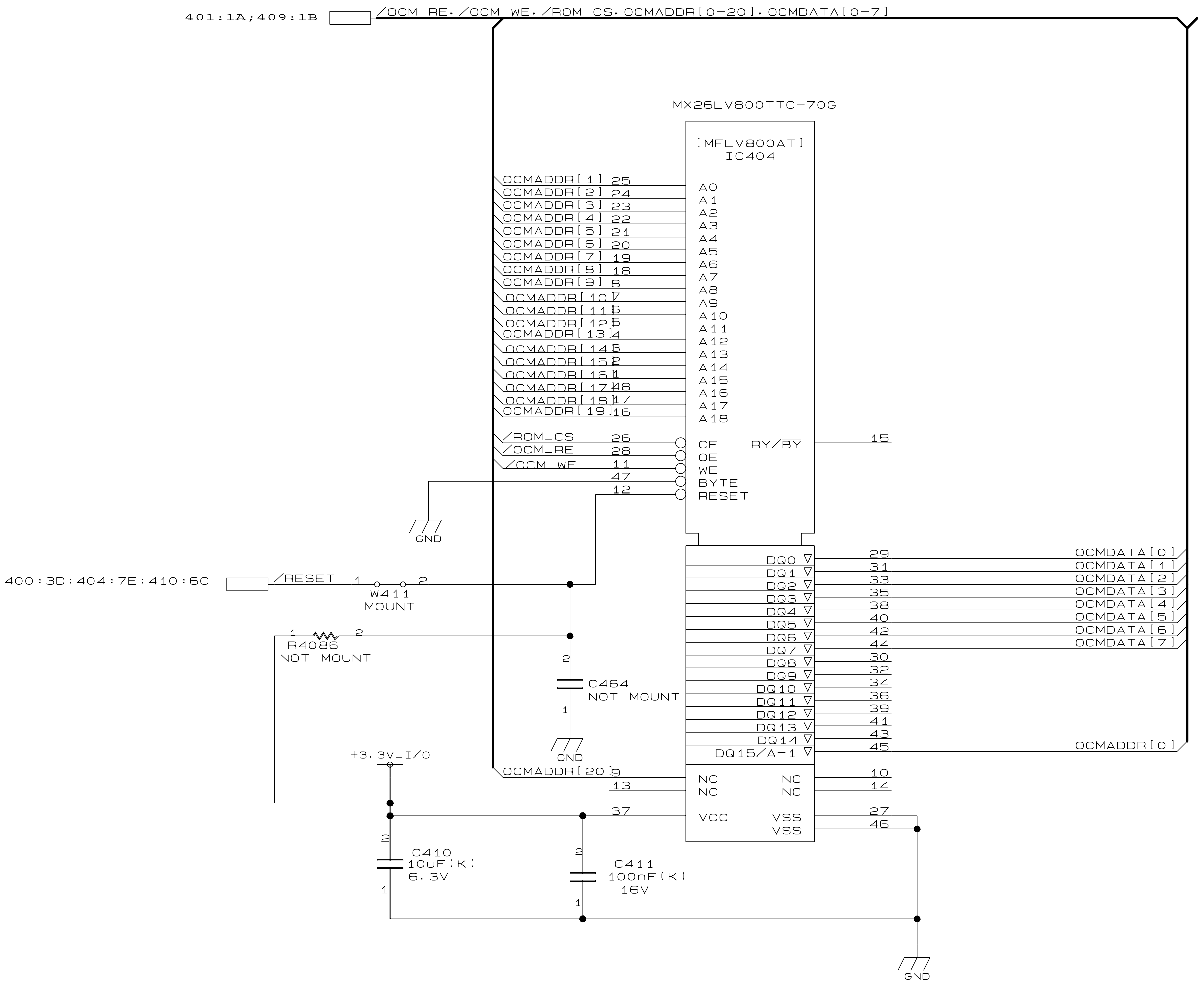
32HL95
SIGNAL
MICRO I/O

SH. NO.
400


402:3A;409:1B
/OCM_RE./OCM_WE./ROM_CS.OCMADDR[0-20].OCMDATA[0-7]
[U8532]
7/9
IC700
R487 33(J)
R440 33(J)
OCMADDR[20]
OCMADDR[19]
OCMADDR[18]
OCMADDR[17]
OCMADDR[16]
RM400 33(J) [RMX4A]
OCMADDR[15]
OCMADDR[14]
OCMADDR[13]
OCMADDR[12]
RM401 33(J) [RMX4A]
OCMADDR[11]
OCMADDR[10]
OCMADDR[9]
OCMADDR[8]
RM402 33(J) [RMX4A]
OCMADDR[7]
OCMADDR[6]
OCMADDR[5]
OCMADDR[4]
RM403 33(J) [RMX4A]
OCMADDR[3]
OCMADDR[2]
OCMADDR[1]
OCMADDR[0]
RM404 33(J) [RMX4A]
AF15 OCMADDR21
AE15 OCMADDR20
AD15 OCMADDR19
AC15 OCMADDR18
AF16 OCMADDR17
AE16 OCMADDR16
AD16 OCMADDR15
AF17 OCMADDR14
AE17 OCMADDR13
AD17 OCMADDR12
AC17 OCMADDR11
AF18 OCMADDR10
AE18 OCMADDR9
AD18 OCMADDR8
AF19 OCMADDR7
AE19 OCMADDR6
AD19 OCMADDR5
AC19 OCMADDR4
AF20 OCMADDR3
AE20 OCMADDR2
AD20 OCMADDR1
AF21 OCMADDR0
PBIAS U26
PPWR U25
GPIO47 R25
GPIO46 R24
GPIO45 R23
GPIO44 T26
JTAG_BS_TDO T25
JTAG_BS_TMS T24
OCMCS2n AC24
OCMCS1n AD26
OCMCS0n AD25
ROMCSn AD24
OCMWEn AC26
OCMREn AC25
OCMDATA0 AE26
OCMDATA1 AE25
OCMDATA2 AE24
OCMDATA3 AF26
OCMDATA4 AF25
OCMDATA5 AF24
OCMDATA6 AC23
OCMDATA7 AD23
OCMDATA8 AE23
OCMDATA9 AF23
OCMDATA10 AD22
OCMDATA11 AE22
OCMDATA12 AF22
OCMDATA13 AC21
OCMDATA14 AD21
OCMDATA15 AE21
R441 100(J) BL_ONOFF 902:1D
R442 100(J) POWER_LCD 901:3B
R443 100(J) D4_SW 200:4D
R444 100(J)NOT MOUNT STBY_RST 405:3E
R445 100(J) HDMI_RST 302:4A
R446 100(J) POWER_KEY_S 405:8A
R447 100(J) GP1 200:1C
R448 100(J) BS_TV_MUTE 600:4C
+3.3V_I/O
R40710K(J)
R488 100(J) USB 300:1D
R489 100(J) MAIN_SYNC_DET 403:8E
R449 1K(J) D4_L2 200:2E
[RMX4A] RM407 33(J)
/ROM_CS
/OCM_WE
/OCM_RE
[RMX4A] RM405 33(J)
OCMDATA[0]
OCMDATA[1]
OCMDATA[2]
OCMDATA[3]
[RMX4A] RM406 33(J)
OCMDATA[4]
OCMDATA[5]
OCMDATA[6]
OCMDATA[7]
R4029 100(J) SW_DVI1 600:4B
R4030 100(J) AV/S_DET2 200:4F
R4031 100(J)NOT MOUNT (AV/S DET3)
R4032 33K(J)
R4033 100(J) SW_DVI2 600:4B
R4034 100(J) LED3 404:8B
R4035 100(J) LED4 404:8B
R4036 100(J) 50HZ_60HZ 903:1A
+3.3V_I/O
R4026 33K(J)
E
B
C
[TRP] Q404
2SA1586-Y(TE85L.F)
R4027 1K(J)
POWER_SIG_DET 300:4E:901:3B
R4028 220K(J)
C478 470pF(J)
GND
1 2 3 4 5 6 7 8
A B C D E F

32HL95
SIGNAL
OCM MEMORY I/F

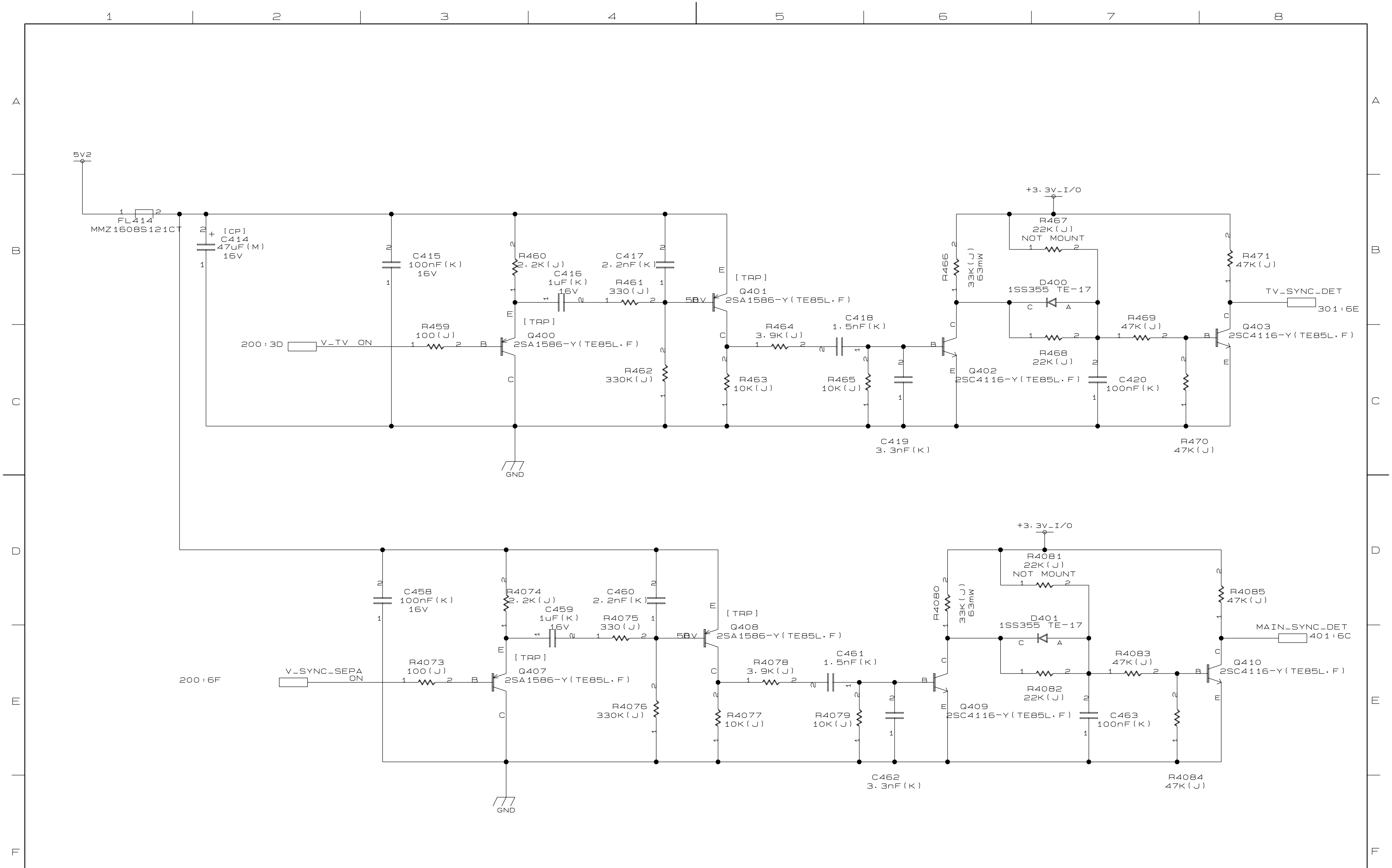
SH. NO.
401



401:1A;409:1B
/OCM_RE,/OCM_WE,/ROM_CS,OCMADDR[0-20],OCMDATA[0-7]
MX26LV800TTC-70G
[MFLV800AT]
IC404
OCMADDR[1] 25 A0
OCMADDR[2] 24 A1
OCMADDR[3] 23 A2
OCMADDR[4] 22 A3
OCMADDR[5] 21 A4
OCMADDR[6] 20 A5
OCMADDR[7] 19 A6
OCMADDR[8] 18 A7
OCMADDR[9] 8 A8
OCMADDR[10] 7 A9
OCMADDR[11] 6 A10
OCMADDR[12] 5 A11
OCMADDR[13] 4 A12
OCMADDR[14] 3 A13
OCMADDR[15] 2 A14
OCMADDR[16] 1 A15
OCMADDR[17] 48 A16
OCMADDR[18] 17 A17
OCMADDR[19] 16 A18
/ROM_CS 26 CE
/OCM_RE 28 OE
/OCM_WE 11 WE
47 BYTE
12 RESET
RY/BY 15
GND
400:3D:404:7E:410:6C
/RESET
1 2
W411
MOUNT
1 2
R4086
NOT MOUNT
2
C464
NOT MOUNT
1
GND
DQ0 29 OCMDATA[0]
DQ1 31 OCMDATA[1]
DQ2 33 OCMDATA[2]
DQ3 35 OCMDATA[3]
DQ4 38 OCMDATA[4]
DQ5 40 OCMDATA[5]
DQ6 42 OCMDATA[6]
DQ7 44 OCMDATA[7]
DQ8 30
DQ9 32
DQ10 34
DQ11 36
DQ12 39
DQ13 41
DQ14 43
DQ15/A-1 45 OCMADDR[0]
+3.3V_I/O
OCMADDR[20] 9 NC
13 NC
NC 10
NC 14
37 VCC
VSS 27
VSS 46
2
C410
10uF(K)
6.3V
1
2
C411
100nF(K)
16V
1
GND

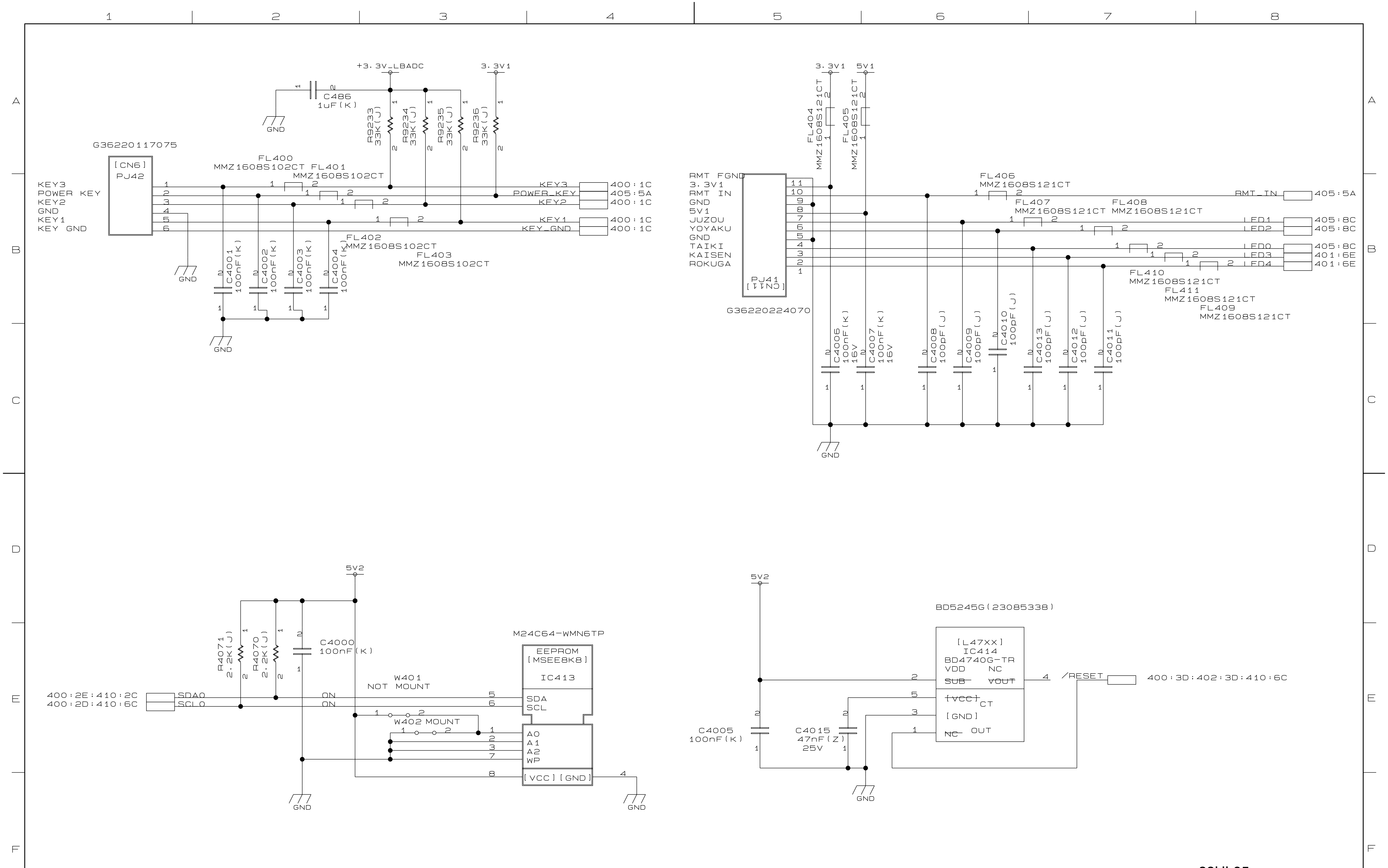
32HL95
SIGNAL
FLASH MEMORY

SH. NO.
402


1
2
3
4
5
6
7
8
A
B
C
D
E
F
5V2
FL414
MMZ1608S121CT
[CP]
C414
47uF(M)
16V
C415
100nF(K)
16V
R460
2.2K(J)
C416
1uF(K)
16V
R461
330(J)
C417
2.2nF(K)
[TRP]
Q401
2SA1586-Y(TE85L.F)
5BV
[TRP]
Q400
2SA1586-Y(TE85L.F)
R459
100(J)
200:3D
V_TV ON
R462
330K(J)
R463
10K(J)
R464
3.9K(J)
C418
1.5nF(K)
R465
10K(J)
C419
3.3nF(K)
GND
+3.3V_I/O
R467
22K(J)
NOT MOUNT
R466
33K(J)
63mW
D400
1SS355 TE-17
Q402
2SC4116-Y(TE85L.F)
R468
22K(J)
C420
100nF(K)
R469
47K(J)
R470
47K(J)
R471
47K(J)
TV_SYNC_DET
301:6E
Q403
2SC4116-Y(TE85L.F)
C458
100nF(K)
16V
R4074
2.2K(J)
C459
1uF(K)
16V
R4075
330(J)
C460
2.2nF(K)
[TRP]
Q408
2SA1586-Y(TE85L.F)
5BV
[TRP]
Q407
2SA1586-Y(TE85L.F)
R4073
100(J)
200:6F
V_SYNC_SEPA
ON
R4076
330K(J)
R4077
10K(J)
R4078
3.9K(J)
C461
1.5nF(K)
R4079
10K(J)
C462
3.3nF(K)
GND
+3.3V_I/O
R4081
22K(J)
NOT MOUNT
R4080
33K(J)
63mW
D401
1SS355 TE-17
Q409
2SC4116-Y(TE85L.F)
R4082
22K(J)
C463
100nF(K)
R4083
47K(J)
R4084
47K(J)
R4085
47K(J)
MAIN_SYNC_DET
401:6C
Q410
2SC4116-Y(TE85L.F)

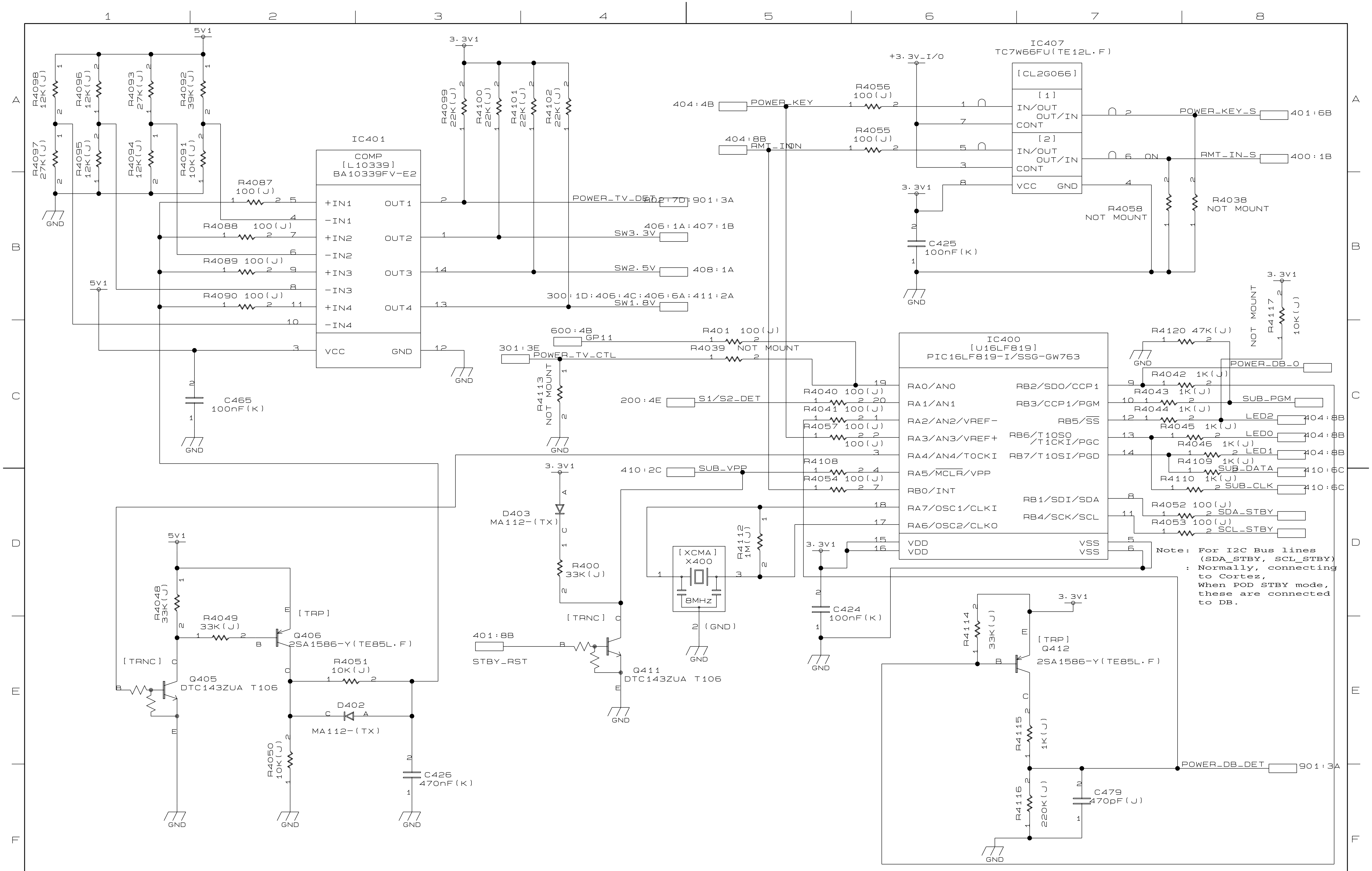
32HL95
SIGNAL
SYNC SEPA

SH. NO.
403


1
2
3
4
5
6
7
8
A
B
C
D
E
F
+3.3V_LBADC
3.3V1
C486
1uF(K)
GND
R9233
33K(J)
R9234
33K(J)
R9235
33K(J)
R9236
33K(J)
G36220117075
[CN6]
PJ42
FL400
MMZ1608S102CT
FL401
MMZ1608S102CT
KEY3
POWER KEY
KEY2
GND
KEY1
KEY GND
KEY3
POWER_KEY
KEY2
KEY1
KEY_GND
400:1C
405:5A
400:1C
400:1C
400:1C
FL402
MMZ1608S102CT
FL403
MMZ1608S102CT
C4001
100nF(K)
C4002
100nF(K)
C4003
100nF(K)
C4004
100nF(K)
3.3V1
5V1
FL404
MMZ1608S121CT
FL405
MMZ1608S121CT
RMT FGND
3.3V1
RMT IN
GND
5V1
JUZOU
YOYAKU
GND
TAIKI
KAISEN
ROKUGA
PJ41
[CN41]
G36220224070
FL406
MMZ1608S121CT
FL407
MMZ1608S121CT
FL408
MMZ1608S121CT
RMT_IN
405:5A
LED1
405:8C
LED2
405:8C
LED0
405:8C
LED3
401:6E
LED4
401:6E
FL410
MMZ1608S121CT
FL411
MMZ1608S121CT
FL409
MMZ1608S121CT
C4006
100nF(K)
16V
C4007
100nF(K)
16V
C4008
100pF(J)
C4009
100pF(J)
C4010
100pF(J)
C4013
100pF(J)
C4012
100pF(J)
C4011
100pF(J)
5V2
R4071
2.2K(J)
R4070
2.2K(J)
C4000
100nF(K)
M24C64-WMN6TP
EEPROM
[MSEE8K8]
IC413
W401
NOT MOUNT
400:2E:410:2C
400:2D:410:6C
SDA0
SCL0
ON
ON
SDA
SCL
W402 MOUNT
A0
A1
A2
WP
[VCC] [GND]
5V2
BD5245G(23085338)
[L47XX]
IC414
BD4740G-TR
VDD
NC
SUB
VOUT
[VCC]
CT
[GND]
NC
OUT
/RESET
400:3D:402:3D:410:6C
C4005
100nF(K)
C4015
47nF(Z)
25V

32HL95
SIGNAL
E2P OTHER

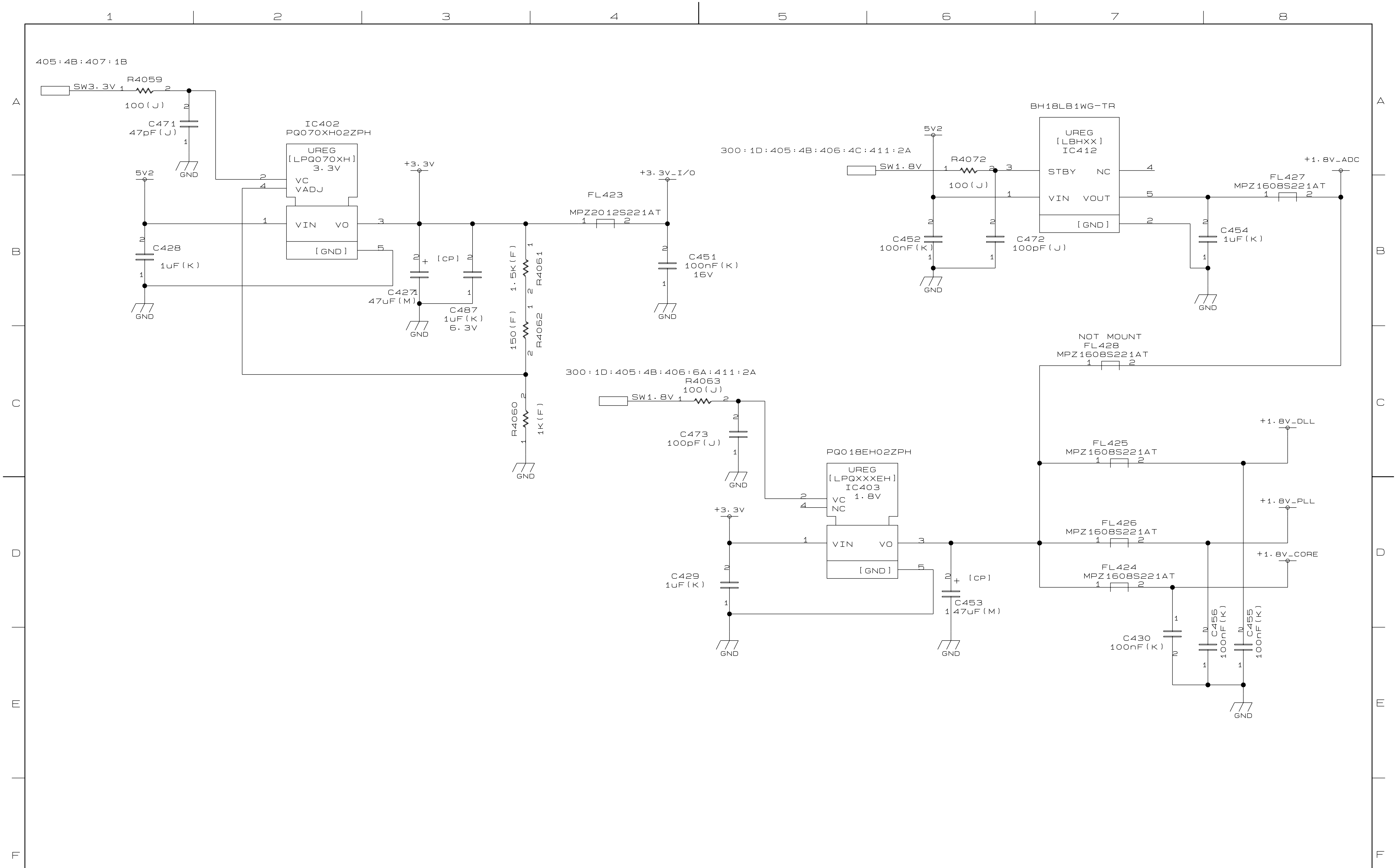
SH. NO.
404


1
2
3
4
5
6
7
8
A
B
C
D
E
F
5V1
3.3V1
+3.3V_I/O
R4098 12K(J)
R4096 12K(J)
R4093 27K(J)
R4092 39K(J)
R4097 27K(J)
R4095 12K(J)
R4094 12K(J)
R4091 10K(J)
R4099 22K(J)
R4100 22K(J)
R4101 22K(J)
R4102 22K(J)
GND
IC401
COMP
[L10339]
BA10339FV-E2
+IN1
-IN1
+IN2
-IN2
+IN3
-IN3
+IN4
-IN4
VCC
GND
OUT1
OUT2
OUT3
OUT4
R4087 100(J)
R4088 100(J)
R4089 100(J)
R4090 100(J)
POWER_TV_DET
602:7D:901:3A
406:1A:407:1B
SW3.3V
SW2.5V
408:1A
300:1D:406:4C:406:6A:411:2A
SW1.8V
C465 100nF(K)
IC407
TC7W66FU(TE12L.F)
[CL2G066]
[1]
IN/OUT
OUT/IN
CONT
[2]
IN/OUT
OUT/IN
CONT
VCC
GND
404:4B
POWER_KEY
R4056 100(J)
404:8B
RMT_IN
ON
R4055 100(J)
POWER_KEY_S
401:6B
RMT_IN_S
400:1B
R4058 NOT MOUNT
R4038 NOT MOUNT
C425 100nF(K)
IC400
[U16LF819]
PIC16LF819-I/SSG-GW763
RA0/AN0
RA1/AN1
RA2/AN2/VREF-
RA3/AN3/VREF+
RA4/AN4/TOCKI
RA5/MCLR/VPP
RB0/INT
RA7/OSC1/CLKI
RA6/OSC2/CLKO
VDD
VDD
RB2/SDO/CCP1
RB3/CCP1/PGM
RB5/SS
RB6/T1OSO/T1CKI/PGC
RB7/T1OSI/PGD
RB1/SDI/SDA
RB4/SCK/SCL
VSS
VSS
600:4B
GP11
R401 100(J)
301:3E
POWER_TV_CTL
R4039 NOT MOUNT
R4113 NOT MOUNT
200:4E
S1/S2_DET
R4040 100(J)
R4041 100(J)
R4057 100(J)
100(J)
410:2C
SUB_VPP
R4108
R4054 100(J)
R4120 47K(J)
R4117 10K(J) NOT MOUNT
POWER_DB_O
R4042 1K(J)
R4043 1K(J)
SUB_PGM
R4044 1K(J)
LED2
404:8B
R4045 1K(J)
LED0
404:8B
R4046 1K(J)
LED1
404:8B
R4109 1K(J)
SUB_DATA
410:6C
R4110 1K(J)
SUB_CLK
410:6C
R4052 100(J)
SDA_STBY
R4053 100(J)
SCL_STBY
Note: For I2C Bus lines
(SDA_STBY, SCL_STBY)
: Normally, connecting
to Cortez,
When POD STBY mode,
these are connected
to DB.
D403 MA112-(TX)
R400 33K(J)
[XCMA]
X400
8MHz
2 (GND)
R4112 1M(J)
C424 100nF(K)
R4048 33K(J)
R4049 33K(J)
[TRP]
Q406
2SA1586-Y(TE85L.F)
[TRNC]
Q405
DTC143ZUA T106
R4051 10K(J)
D402
MA112-(TX)
R4050 10K(J)
C426 470nF(K)
401:8B
STBY_RST
[TRNC]
Q411
DTC143ZUA T106
R4114 33K(J)
[TRP]
Q412
2SA1586-Y(TE85L.F)
R4115 1K(J)
POWER_DB_DET
901:3A
R4116 220K(J)
C479 470pF(J)

32HL95 SH. NO.

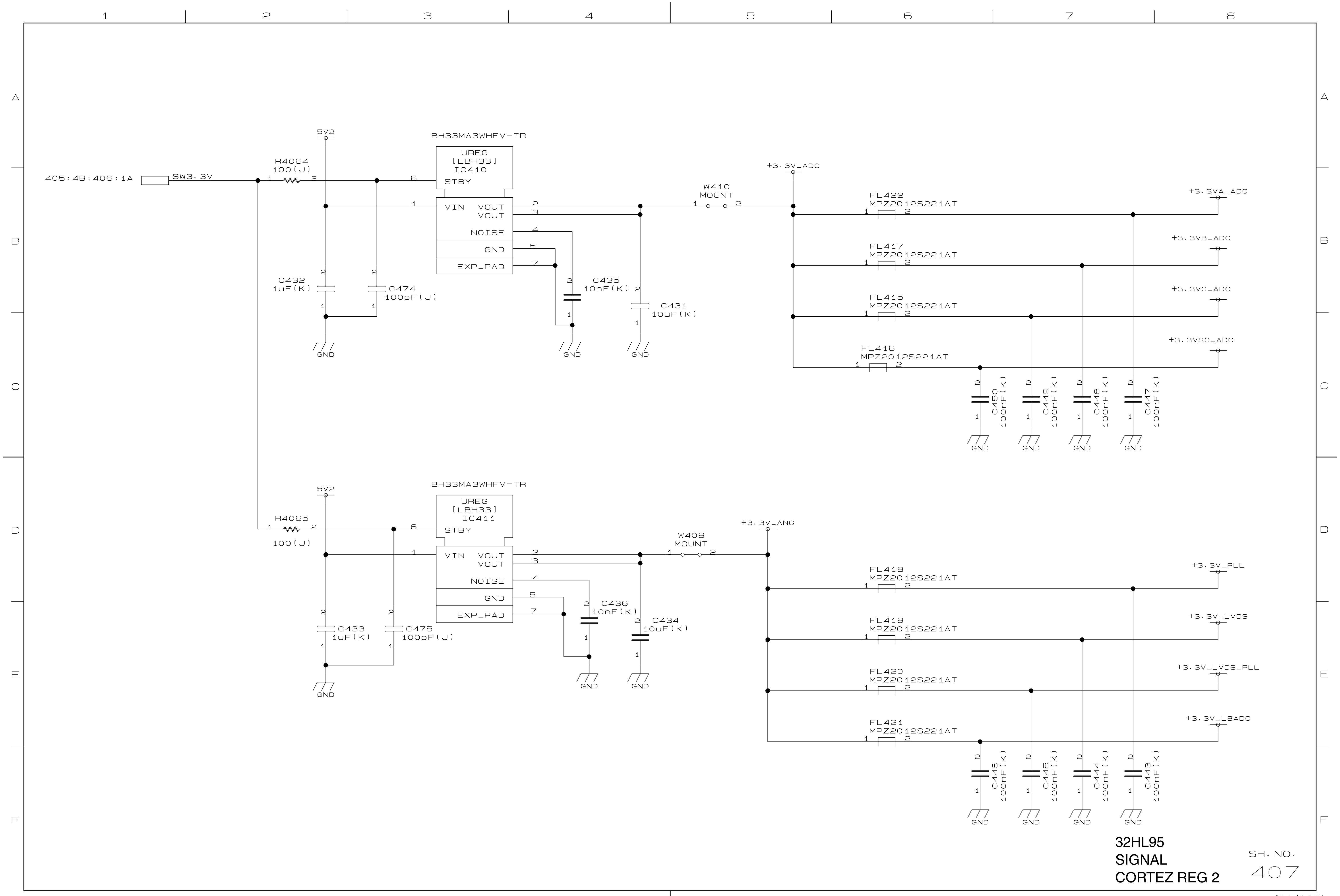
SIGNAL STD-BY MICRO 405

(31/122)


405:4B:407:1B
SW3.3V
R4059
100(J)
C471
47pF(J)
IC402
PQ070XH02ZPH
UREG
[LPQ070XH]
3.3V
VC
VADJ
VIN
VO
[GND]
5V2
C428
1uF(K)
GND
+3.3V
C427
47uF(M)
[CP]
C487
1uF(K)
6.3V
1.5K(F)
R4061
150(F)
R4062
R4060
1K(F)
FL423
MPZ2012S221AT
+3.3V_I/O
C451
100nF(K)
16V
300:1D:405:4B:406:6A:411:2A
R4063
100(J)
SW1.8V
C473
100pF(J)
PQ018EH02ZPH
UREG
[LPQXXXEH]
IC403
1.8V
VC
NC
VIN
VO
[GND]
+3.3V
C429
1uF(K)
C453
47uF(M)
[CP]
BH18LB1WG-TR
UREG
[LBHXX]
IC412
STBY
NC
VIN
VOUT
[GND]
300:1D:405:4B:406:4C:411:2A
SW1.8V
R4072
100(J)
5V2
C452
100nF(K)
C472
100pF(J)
C454
1uF(K)
+1.8V_ADC
FL427
MPZ1608S221AT
NOT MOUNT
FL428
MPZ1608S221AT
FL425
MPZ1608S221AT
+1.8V_DLL
FL426
MPZ1608S221AT
+1.8V_PLL
FL424
MPZ1608S221AT
+1.8V_CORE
C430
100nF(K)
C456
100nF(K)
C455
100nF(K)
1
2
3
4
5
6
7
8
A
B
C
D
E
F

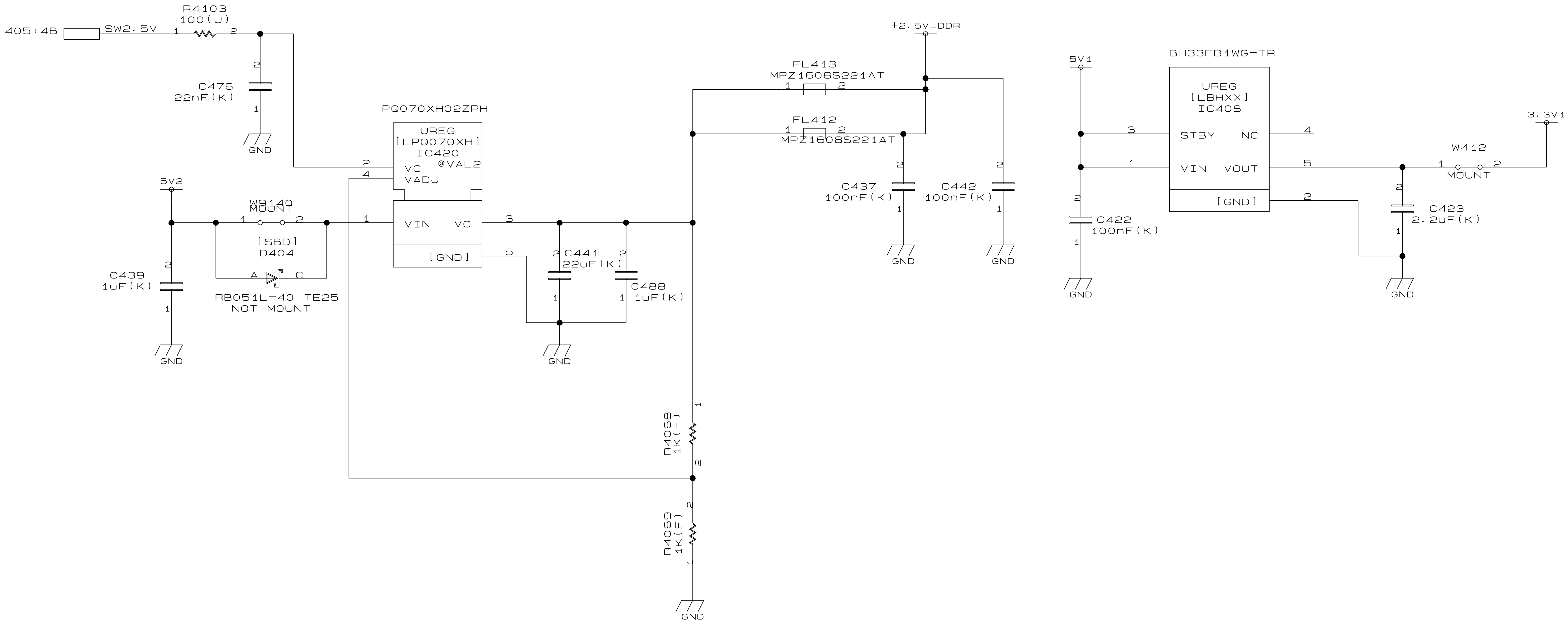
32HL95
SIGNAL
CORTEZ REG 1

SH. NO.
406


405:4B:406:1A
SW3.3V
R4064
100(J)
5V2
BH33MA3WHFV-TR
UREG
[LBH33]
IC410
STBY
VIN
VOUT
VOUT
NOISE
GND
EXP_PAD
C432
1uF(K)
C474
100pF(J)
C435
10nF(K)
C431
10uF(K)
GND
W410
MOUNT
+3.3V_ADC
FL422
MPZ2012S221AT
+3.3VA_ADC
FL417
MPZ2012S221AT
+3.3VB_ADC
FL415
MPZ2012S221AT
+3.3VC_ADC
FL416
MPZ2012S221AT
+3.3VSC_ADC
C450
100nF(K)
C449
100nF(K)
C448
100nF(K)
C447
100nF(K)
R4065
100(J)
BH33MA3WHFV-TR
UREG
[LBH33]
IC411
C433
1uF(K)
C475
100pF(J)
C436
10nF(K)
C434
10uF(K)
W409
MOUNT
+3.3V_ANG
FL418
MPZ2012S221AT
+3.3V_PLL
FL419
MPZ2012S221AT
+3.3V_LVDS
FL420
MPZ2012S221AT
+3.3V_LVDS_PLL
FL421
MPZ2012S221AT
+3.3V_LBADC
C446
100nF(K)
C445
100nF(K)
C444
100nF(K)
C443
100nF(K)
1 2 3 4 5 6 7 8
A B C D E F

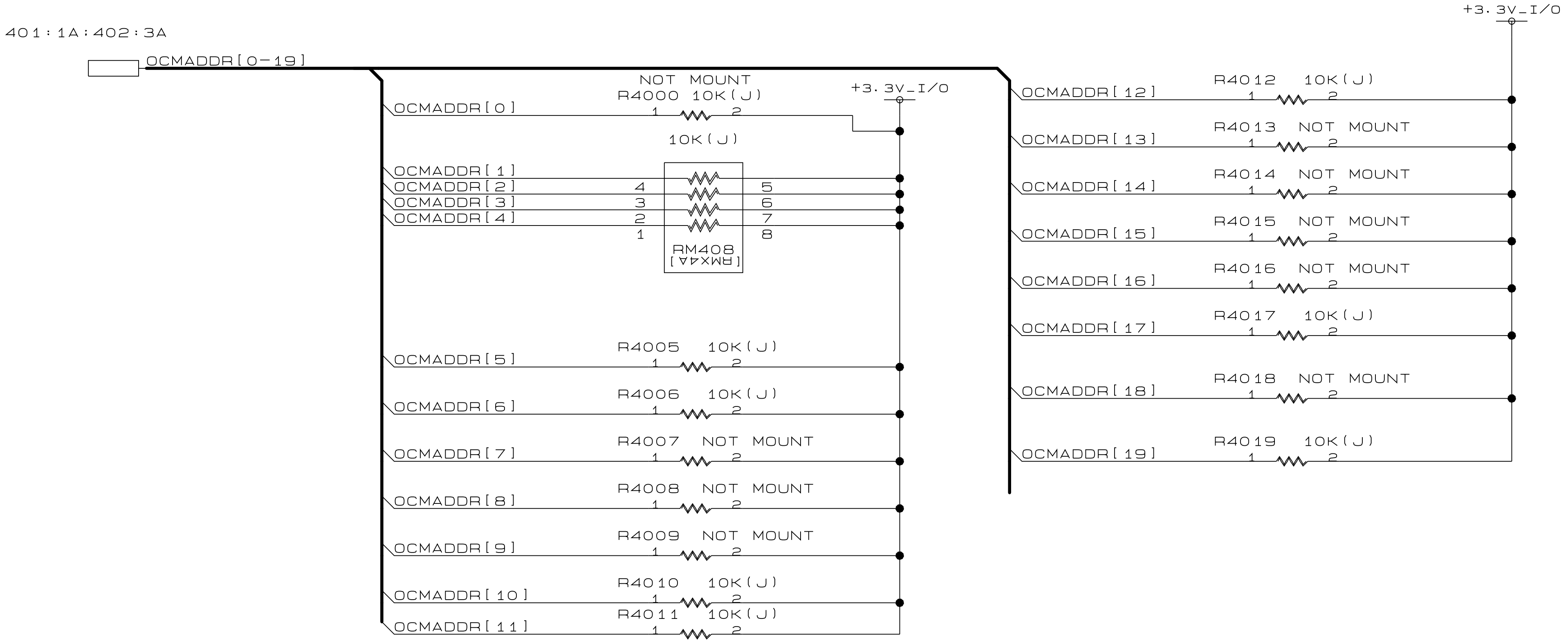
32HL95
SIGNAL
CORTEZ REG 2

SH. NO.
407


405:4B
SW2.5V
R4103
100(J)
C476
22nF(K)
GND
PQ070XH02ZPH
UREG
[LPQ070XH]
IC420
@VAL2
VC
VADJ
VIN
VO
[GND]
5V2
W9140
MOUNT
[SBD]
D404
A
C
RB051L-40 TE25
NOT MOUNT
C439
1uF(K)
C441
22uF(K)
C488
1uF(K)
R4068
1K(F)
R4069
1K(F)
+2.5V_DDR
FL413
MPZ1608S221AT
FL412
MPZ1608S221AT
C437
100nF(K)
C442
100nF(K)
5V1
BH33FB1WG-TR
UREG
[LBHXX]
IC408
STBY
NC
VIN
VOUT
[GND]
C422
100nF(K)
3.3V1
W412
MOUNT
C423
2.2uF(K)

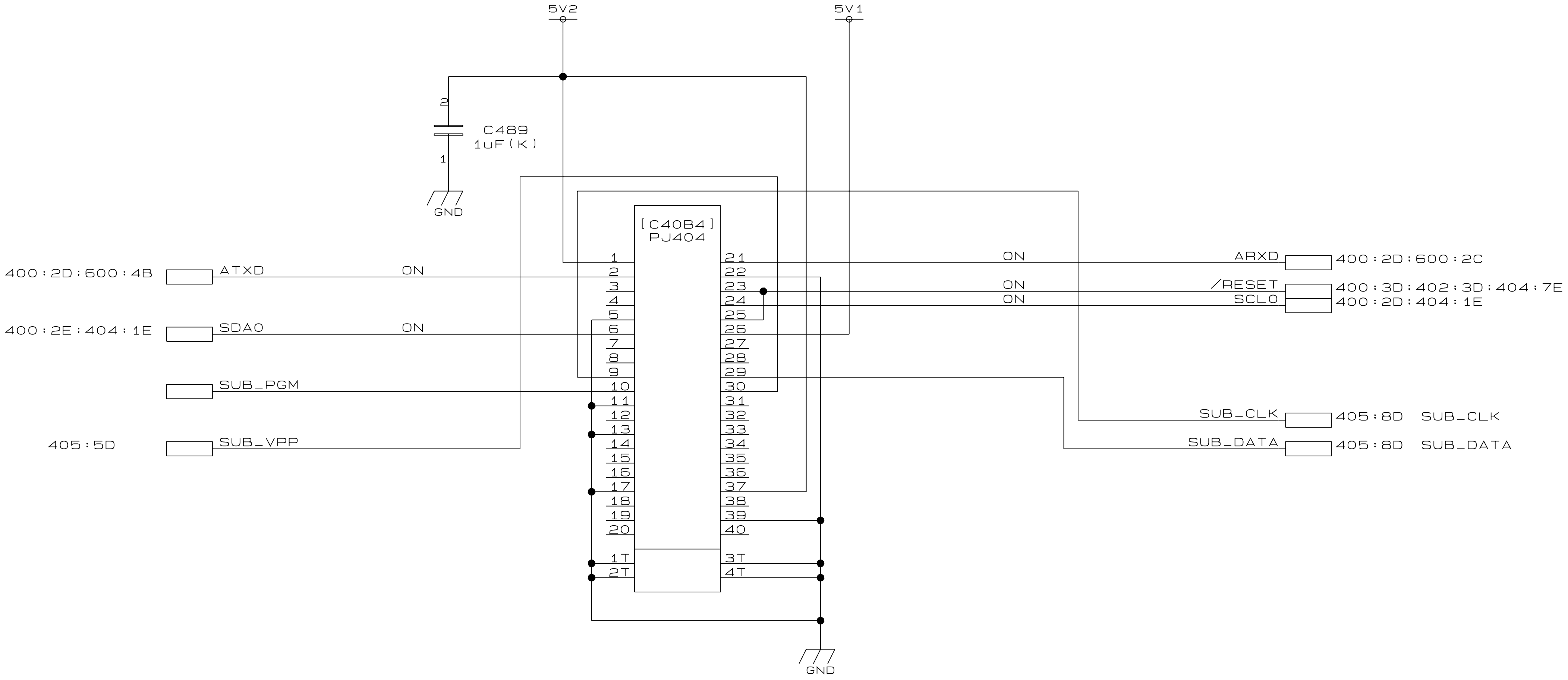
32HL95
SIGNAL
CORTEZ REG 3

SH. NO.
408


401:1A:402:3A
OCMADDR[0-19]
NOT MOUNT
R4000 10K(J)
+3.3V_I/O
OCMADDR[0]
10K(J)
OCMADDR[1]
OCMADDR[2]
OCMADDR[3]
OCMADDR[4]
RM408
[RMX4A]
OCMADDR[5]
R4005 10K(J)
OCMADDR[6]
R4006 10K(J)
OCMADDR[7]
R4007 NOT MOUNT
OCMADDR[8]
R4008 NOT MOUNT
OCMADDR[9]
R4009 NOT MOUNT
OCMADDR[10]
R4010 10K(J)
OCMADDR[11]
R4011 10K(J)
+3.3V_I/O
OCMADDR[12]
R4012 10K(J)
OCMADDR[13]
R4013 NOT MOUNT
OCMADDR[14]
R4014 NOT MOUNT
OCMADDR[15]
R4015 NOT MOUNT
OCMADDR[16]
R4016 NOT MOUNT
OCMADDR[17]
R4017 10K(J)
OCMADDR[18]
R4018 NOT MOUNT
OCMADDR[19]
R4019 10K(J)

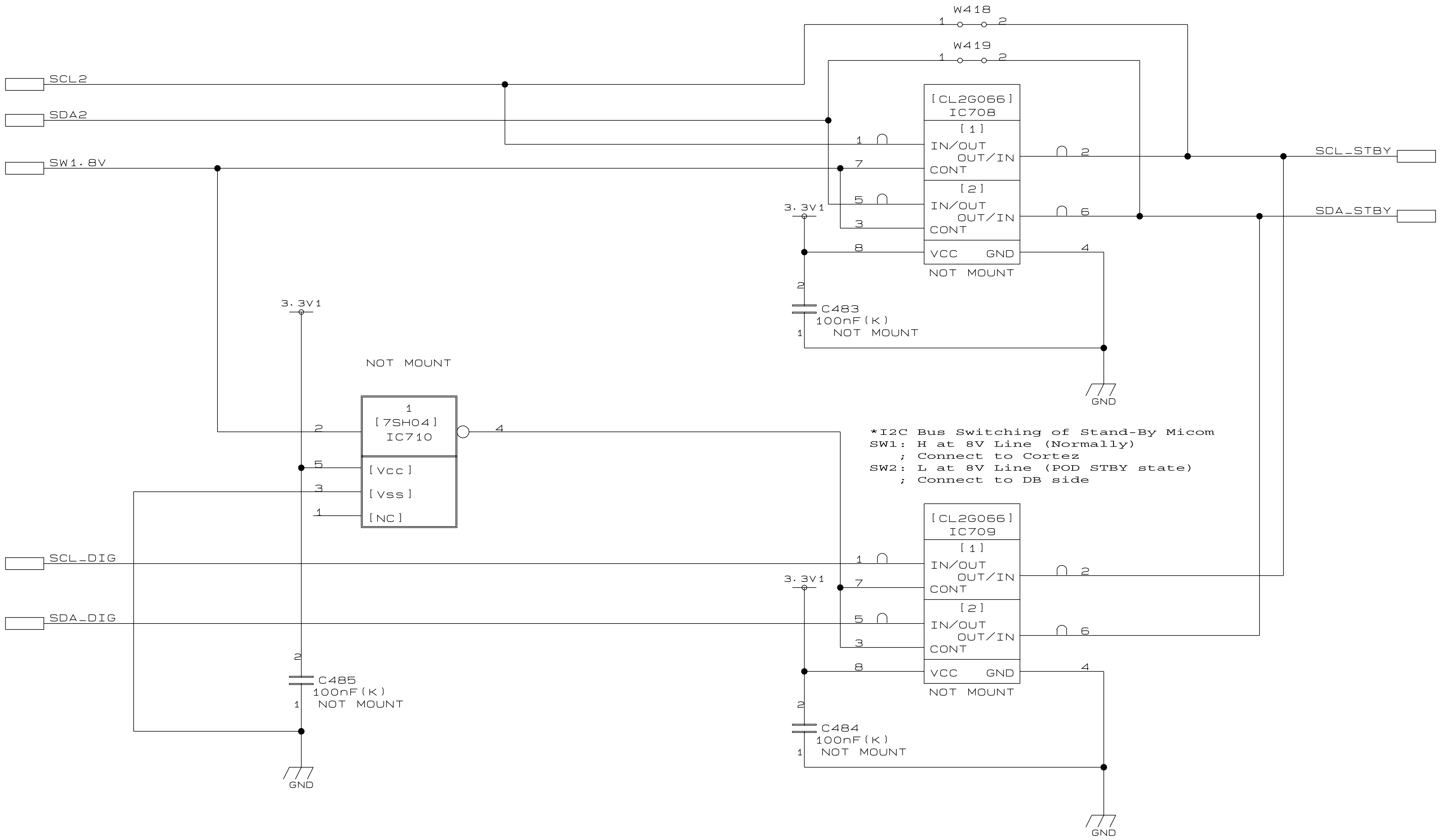
32HL95
SIGNAL
BOOT CONFIG

SH. NO.
409


5V2
5V1
C489
1uF(K)
2
1
GND
[C40B4]
PJ404
400:2D:600:4B
ATXD
ON
400:2E:404:1E
SDA0
ON
SUB_PGM
405:5D
SUB_VPP
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20
21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40
1T 2T 3T 4T
ON
ON
ON
ARXD
400:2D:600:2C
/RESET
400:3D:402:3D:404:7E
SCL0
400:2D:404:1E
SUB_CLK
405:8D SUB_CLK
SUB_DATA
405:8D SUB_DATA
GND

32HL95
SIGNAL
SERVICE CONNECTOR

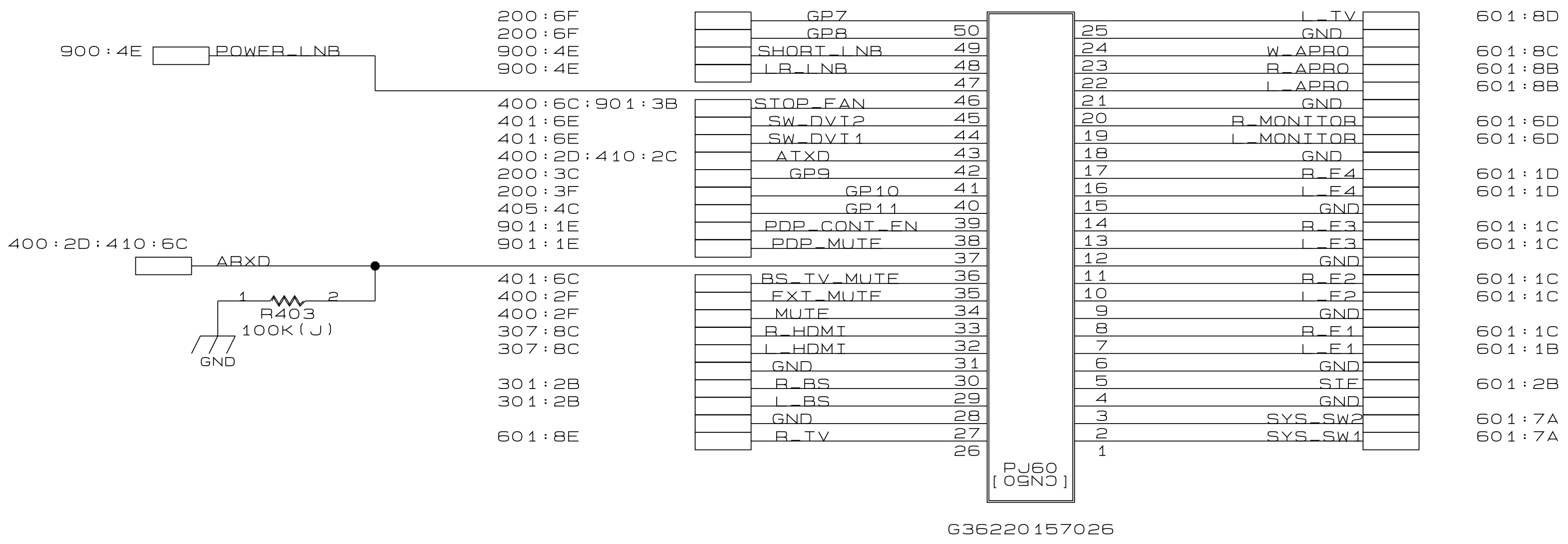
SH. NO.
410


W418
1
2
W419
1
2
SCL2
SDA2
SW1.8V
[CL2G066]
IC708
[1]
IN/OUT
OUT/IN
CONT
[2]
IN/OUT
OUT/IN
CONT
VCC
GND
NOT MOUNT
1
2
7
5
6
3
8
4
3.3V1
SCL_STBY
SDA_STBY
2
C483
100nF(K)
1
NOT MOUNT
GND
3.3V1
NOT MOUNT
1
[7SH04]
IC710
2
4
5
3
1
[Vcc]
[Vss]
[NC]
SCL_DIG
SDA_DIG
[CL2G066]
IC709
[1]
IN/OUT
OUT/IN
CONT
[2]
IN/OUT
OUT/IN
CONT
VCC
GND
NOT MOUNT
3.3V1
2
C484
100nF(K)
1
NOT MOUNT
GND
2
C485
100nF(K)
1
NOT MOUNT
GND

*I2C Bus Switching of Stand-By Micom
SW1: H at 8V Line (Normally)
; Connect to Cortez
SW2: L at 8V Line (POD STBY state)
; Connect to DB side

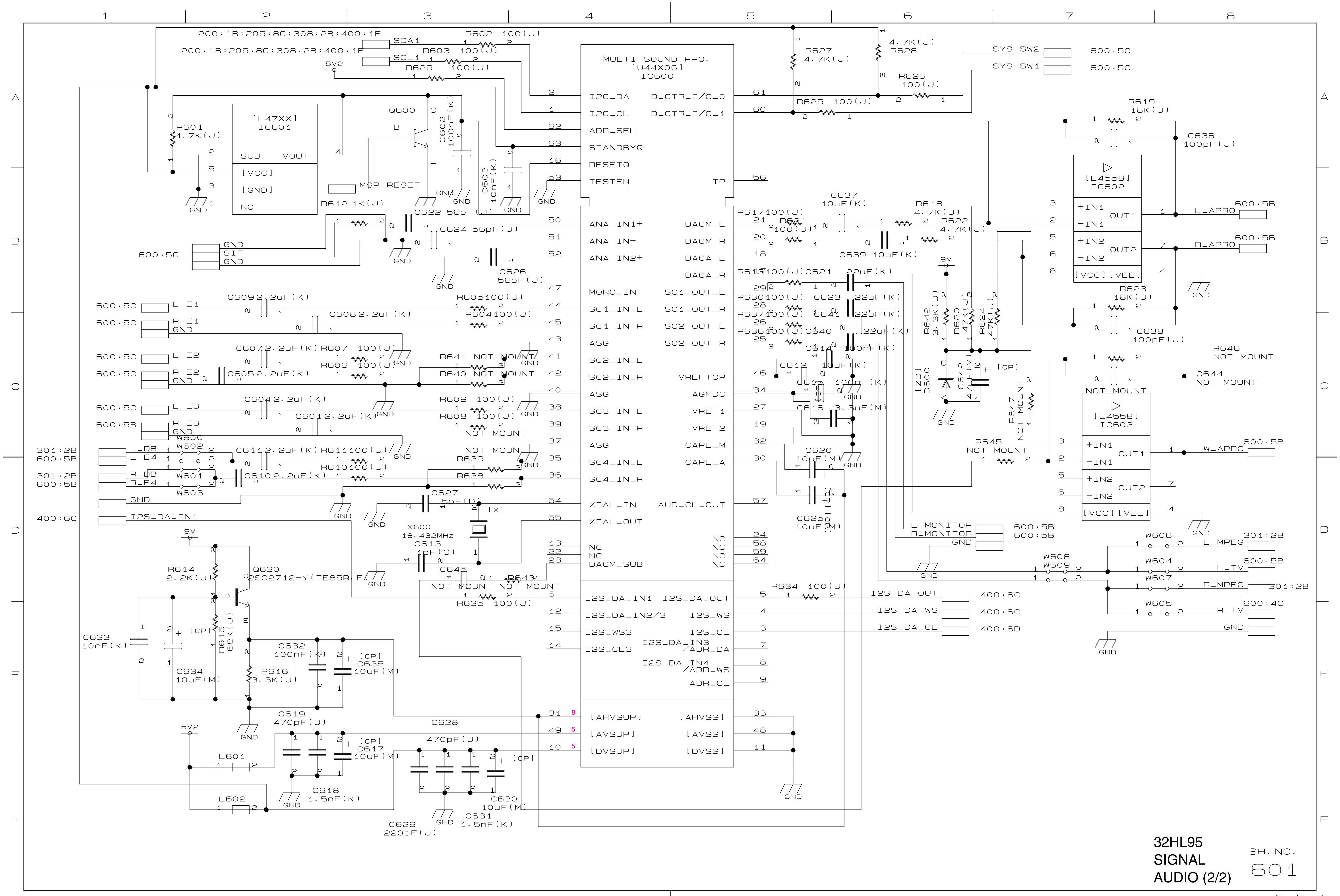
32HL95
SIGNAL
I2C Switch

SH. NO.
411


900:4E
POWER_LNB
400:2D:410:6C
ARXD
R403
100K(J)
1
2
GND
200:6F GP7 50
200:6F GP8 49
900:4E SHORT_LNB 48
900:4E LB_LNB 47
400:6C:901:3B STOP_FAN 46
401:6E SW_DVI2 45
401:6E SW_DVI1 44
400:2D:410:2C ATXD 43
200:3C GP9 42
200:3F GP10 41
405:4C GP11 40
901:1E PDP_CONT_EN 39
901:1E PDP_MUTE 38
37
401:6C BS_TV_MUTE 36
400:2F EXT_MUTE 35
400:2F MUTE 34
307:8C R_HDMI 33
307:8C L_HDMI 32
GND 31
301:2B R_BS 30
301:2B L_BS 29
GND 28
601:8E R_TV 27
26
25 L_TV 601:8D
24 GND
23 W_APRO 601:8C
22 R_APRO 601:8B
21 L_APRO 601:8B
GND
20 R_MONITOR 601:6D
19 L_MONITOR 601:6D
18 GND
17 R_E4 601:1D
16 L_E4 601:1D
15 GND
14 R_E3 601:1C
13 L_E3 601:1C
12 GND
11 R_E2 601:1C
10 L_E2 601:1C
9 GND
8 R_E1 601:1C
7 L_E1 601:1B
6 GND
5 SIF 601:2B
4 GND
3 SYS_SW2 601:7A
2 SYS_SW1 601:7A
1
PJ60
[CN50]
G36220157026

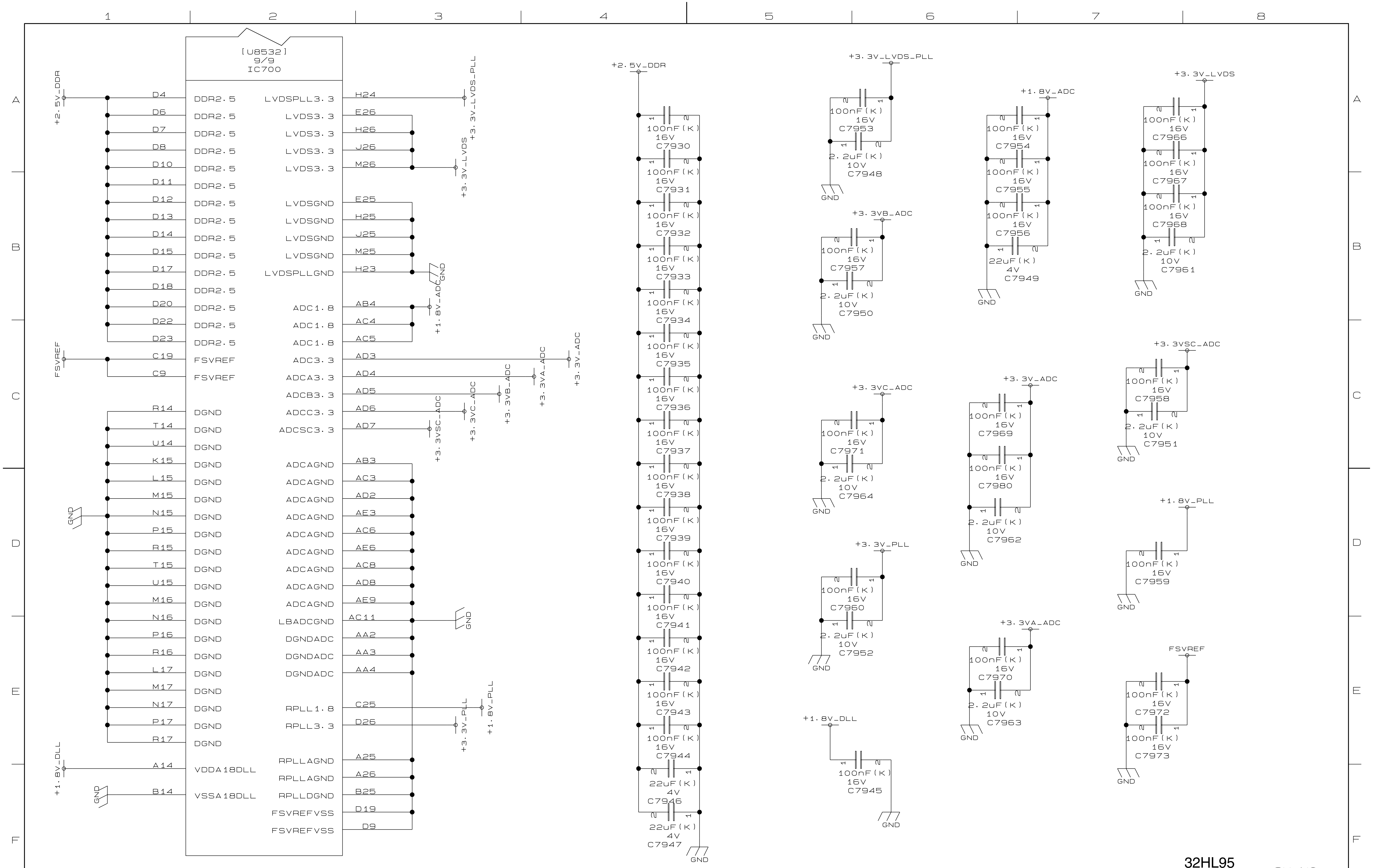
32HL95
SIGNAL
AUDIO (1/2)

SH. NO.
600


1
2
3
4
5
6
7
8
A
B
C
D
E
F
200:1B:205:8C:308:2B:400:1E
SDA1
SCL1
5V2
R602 100(J)
R603 100(J)
R629 100(J)
MULTI SOUND PRO.
[U44XOG]
IC600
I2C_DA
I2C_CL
ADR_SEL
STANDBYQ
RESETQ
TESTEN
TP
D_CTR_I/O_0
D_CTR_I/O_1
R627 4.7K(J)
R628 4.7K(J)
R626 100(J)
R625 100(J)
SYS_SW2
SYS_SW1
600:5C
[L47XX]
IC601
SUB
VOUT
[VCC]
[GND]
NC
R601 4.7K(J)
Q600
C602 100nF(K)
C603 10nF(K)
MSP_RESET
R612 1K(J)
GND
C622 56pF(J)
C624 56pF(J)
C626 56pF(J)
GND
SIF
ANA_IN1+
ANA_IN-
ANA_IN2+
MONO_IN
SC1_IN_L
SC1_IN_R
ASG
SC2_IN_L
SC2_IN_R
SC3_IN_L
SC3_IN_R
SC4_IN_L
SC4_IN_R
XTAL_IN
XTAL_OUT
NC
DACM_SUB
DACM_L
DACM_R
DACA_L
DACA_R
SC1_OUT_L
SC1_OUT_R
SC2_OUT_L
SC2_OUT_R
VREFTOP
AGNDC
VREF1
VREF2
CAPL_M
CAPL_A
AUD_CL_OUT
L_E1
R_E1
L_E2
R_E2
L_E3
R_E3
L_DB
L_E4
R_DB
R_E4
W600
W601
W602
W603
301:2B
600:5B
400:6C
I2S_DA_IN1
C609 2.2uF(K)
C608 2.2uF(K)
C607 2.2uF(K)
C605 2.2uF(K)
C604 2.2uF(K)
C601 2.2uF(K)
C611 2.2uF(K)
C610 2.2uF(K)
R605 100(J)
R604 100(J)
R607 100(J)
R606 100(J)
R641 NOT MOUNT
R640 NOT MOUNT
R609 100(J)
R608 100(J)
R611 100(J)
R610 100(J)
R639 NOT MOUNT
R638
C627 5pF(D)
X600 18.432MHz
[X]
C613 1pF(C)
C645 NOT MOUNT
R643 NOT MOUNT
R635 100(J)
R617 100(J)
R621 100(J)
R613 100(J)
R630 100(J)
R637 100(J)
R636 100(J)
C637 10uF(K)
C639 10uF(K)
C621 22uF(K)
C623 22uF(K)
C641 22uF(K)
C640 22uF(K)
C614 100nF(K)
C612 10uF(K)
C615 100nF(K)
C616 3.3uF(M)
C620 10uF(M)
C625 10uF(M)
R618 4.7K(J)
R622 4.7K(J)
R619 18K(J)
C636 100pF(J)
R623 18K(J)
C638 100pF(J)
[L4558]
IC602
+IN1
-IN1
+IN2
-IN2
OUT1
OUT2
[VCC][VEE]
L_APRO
R_APRO
9V
R642 3.3K(J)
R620 47K(J)
R624 47K(J)
[ZD] D600
C642 47uF(M)
[CP]
R646 NOT MOUNT
C644 NOT MOUNT
R647 NOT MOUNT
R645 NOT MOUNT
[L4558]
IC603
W_APRO
L_MONITOR
R_MONITOR
W606
W604
W607
W605
W608
W609
L_MPEG
L_TV
R_MPEG
R_TV
600:4C
I2S_DA_IN1
I2S_DA_IN2/3
I2S_WS3
I2S_CL3
I2S_DA_OUT
I2S_WS
I2S_CL
I2S_DA_IN3 /ADR_DA
I2S_DA_IN4 /ADR_WS
ADR_CL
R634 100(J)
I2S_DA_OUT
I2S_DA_WS
I2S_DA_CL
400:6C
400:6D
R614 2.2K(J)
Q630 2SC2712-Y(TE85R.F)
R615 68K(J)
R616 3.3K(J)
C633 10nF(K)
C634 10uF(M)
C632 100nF(K)
C635 10uF(M)
C619 470pF(J)
C628 470pF(J)
C617 10uF(M)
C618 1.5nF(K)
C629 220pF(J)
C630 10uF(M)
C631 1.5nF(K)
L601
L602
[AHVSUP]
[AVSUP]
[DVSUP]
[AHVSS]
[AVSS]
[DVSS]

32HL95
SIGNAL
AUDIO (2/2)

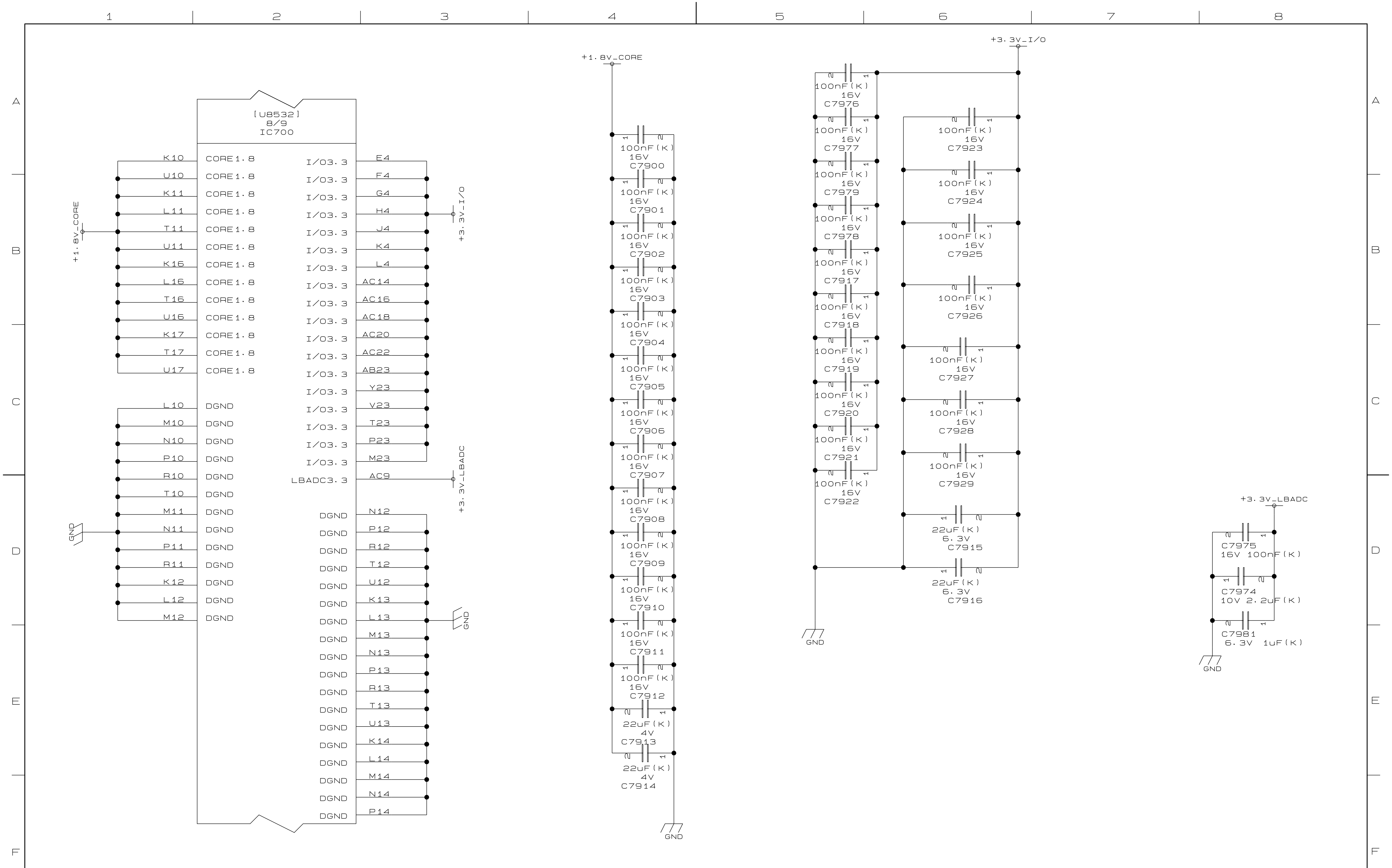
SH. NO.
601



[U8532]
9/9
IC700
+2.5V_DDR
D4 D6 D7 D8 D10 D11 D12 D13 D14 D15 D17 D18 D20 D22 D23
DDR2.5
FSVREF
C19 C9
R14 T14 U14 K15 L15 M15 N15 P15 R15 T15 U15 M16 N16 P16 R16 L17 M17 N17 P17 R17
DGND
+1.8V_DLL
A14 VDDA18DLL
B14 VSSA18DLL
GND
H24 LVDSPLL3.3
E26 H26 J26 M26 LVDS3.3
E25 H25 J25 M25 LVDSGND
H23 LVDSPLLGND
AB4 AC4 AC5 ADC1.8
AD3 ADC3.3
AD4 ADCA3.3
AD5 ADCB3.3
AD6 ADCC3.3
AD7 ADCSC3.3
AB3 AC3 AD2 AE3 AC6 AE6 AC8 AD8 AE9 ADCAGND
AC11 LBADCGND
AA2 AA3 AA4 DGNDADC
C25 RPLL1.8
D26 RPLL3.3
A25 A26 RPLLAGND
B25 RPLLDGND
D19 D9 FSVREFVSS
+3.3V_LVDS_PLL
+3.3V_LVDS
+1.8V_ADC
+3.3V_ADC
+3.3VA_ADC
+3.3VB_ADC
+3.3VC_ADC
+3.3VSC_ADC
+3.3V_PLL
+1.8V_PLL
100nF(K) 16V C7930
100nF(K) 16V C7931
100nF(K) 16V C7932
100nF(K) 16V C7933
100nF(K) 16V C7934
100nF(K) 16V C7935
100nF(K) 16V C7936
100nF(K) 16V C7937
100nF(K) 16V C7938
100nF(K) 16V C7939
100nF(K) 16V C7940
100nF(K) 16V C7941
100nF(K) 16V C7942
100nF(K) 16V C7943
100nF(K) 16V C7944
22uF(K) 4V C7946
22uF(K) 4V C7947
100nF(K) 16V C7953
2.2uF(K) 10V C7948
100nF(K) 16V C7957
2.2uF(K) 10V C7950
100nF(K) 16V C7971
2.2uF(K) 10V C7964
100nF(K) 16V C7960
2.2uF(K) 10V C7952
100nF(K) 16V C7945
100nF(K) 16V C7954
100nF(K) 16V C7955
100nF(K) 16V C7956
22uF(K) 4V C7949
100nF(K) 16V C7969
100nF(K) 16V C7980
2.2uF(K) 10V C7962
100nF(K) 16V C7970
2.2uF(K) 10V C7963
100nF(K) 16V C7966
100nF(K) 16V C7967
100nF(K) 16V C7968
2.2uF(K) 10V C7961
100nF(K) 16V C7958
2.2uF(K) 10V C7951
100nF(K) 16V C7959
100nF(K) 16V C7972
100nF(K) 16V C7973
1 2 3 4 5 6 7 8
A B C D E F

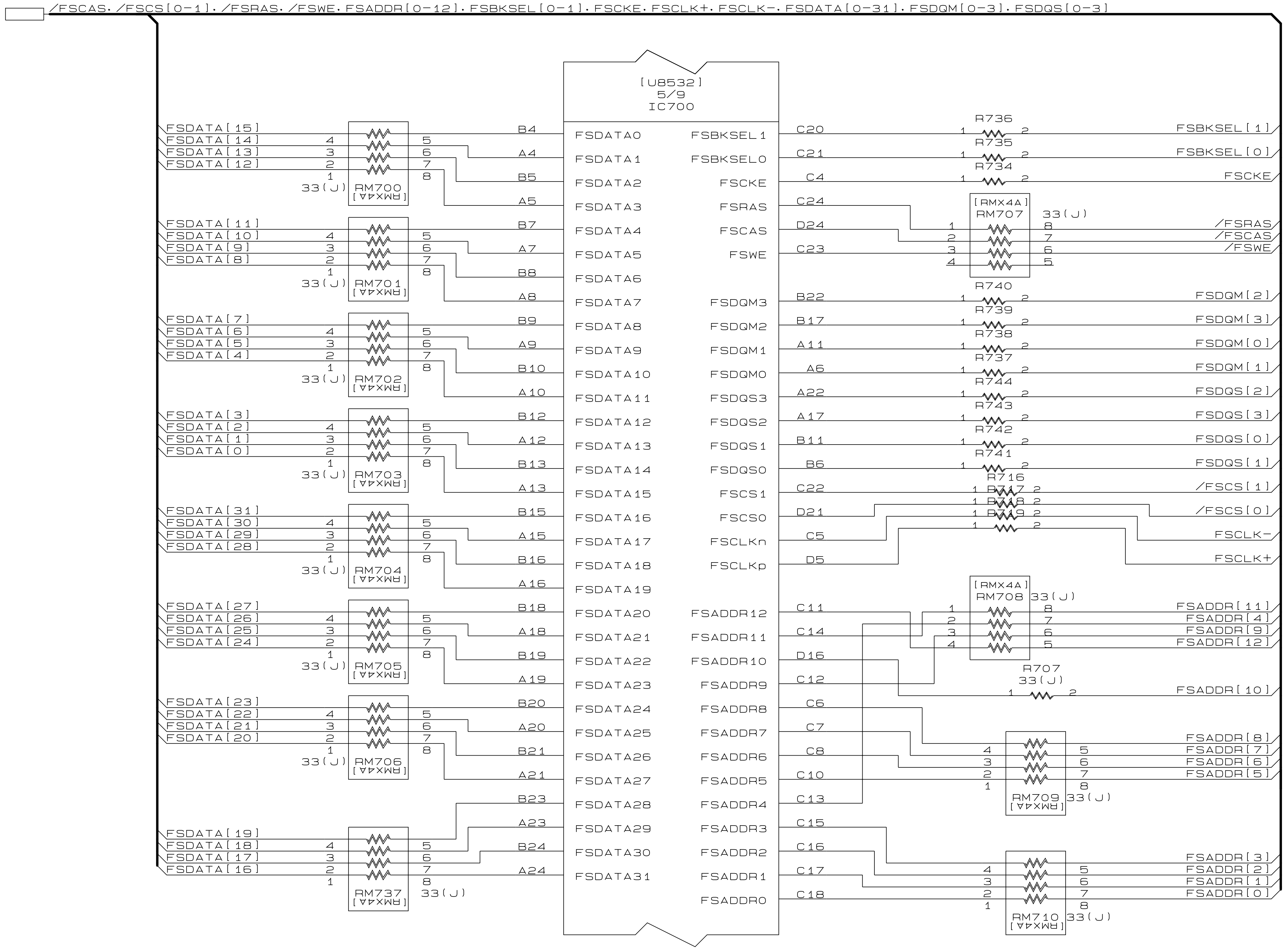
32HL95
SIGNAL
CORTEZ 1

SH. NO.
700


[U8532]
8/9
IC700
K10 CORE1.8
U10 CORE1.8
K11 CORE1.8
L11 CORE1.8
T11 CORE1.8
U11 CORE1.8
K16 CORE1.8
L16 CORE1.8
T16 CORE1.8
U16 CORE1.8
K17 CORE1.8
T17 CORE1.8
U17 CORE1.8
+1.8V_CORE
L10 DGND
M10 DGND
N10 DGND
P10 DGND
R10 DGND
T10 DGND
M11 DGND
N11 DGND
P11 DGND
R11 DGND
K12 DGND
L12 DGND
M12 DGND
GND
I/O3.3 E4
I/O3.3 F4
I/O3.3 G4
I/O3.3 H4
I/O3.3 J4
I/O3.3 K4
I/O3.3 L4
I/O3.3 AC14
I/O3.3 AC16
I/O3.3 AC18
I/O3.3 AC20
I/O3.3 AC22
I/O3.3 AB23
I/O3.3 Y23
I/O3.3 V23
I/O3.3 T23
I/O3.3 P23
I/O3.3 M23
+3.3V_I/O
LBADC3.3 AC9
+3.3V_LBADC
DGND N12
DGND P12
DGND R12
DGND T12
DGND U12
DGND K13
DGND L13
DGND M13
DGND N13
DGND P13
DGND R13
DGND T13
DGND U13
DGND K14
DGND L14
DGND M14
DGND N14
DGND P14
GND
+1.8V_CORE
100nF(K) 16V C7900
100nF(K) 16V C7901
100nF(K) 16V C7902
100nF(K) 16V C7903
100nF(K) 16V C7904
100nF(K) 16V C7905
100nF(K) 16V C7906
100nF(K) 16V C7907
100nF(K) 16V C7908
100nF(K) 16V C7909
100nF(K) 16V C7910
100nF(K) 16V C7911
100nF(K) 16V C7912
22uF(K) 4V C7913
22uF(K) 4V C7914
GND
+3.3V_I/O
100nF(K) 16V C7976
100nF(K) 16V C7977
100nF(K) 16V C7979
100nF(K) 16V C7978
100nF(K) 16V C7917
100nF(K) 16V C7918
100nF(K) 16V C7919
100nF(K) 16V C7920
100nF(K) 16V C7921
100nF(K) 16V C7922
100nF(K) 16V C7923
100nF(K) 16V C7924
100nF(K) 16V C7925
100nF(K) 16V C7926
100nF(K) 16V C7927
100nF(K) 16V C7928
100nF(K) 16V C7929
22uF(K) 6.3V C7915
22uF(K) 6.3V C7916
GND
+3.3V_LBADC
C7975 16V 100nF(K)
C7974 10V 2.2uF(K)
C7981 6.3V 1uF(K)
GND
1 2 3 4 5 6 7 8
A B C D E F

32HL95
SIGNAL
CORTEZ 2

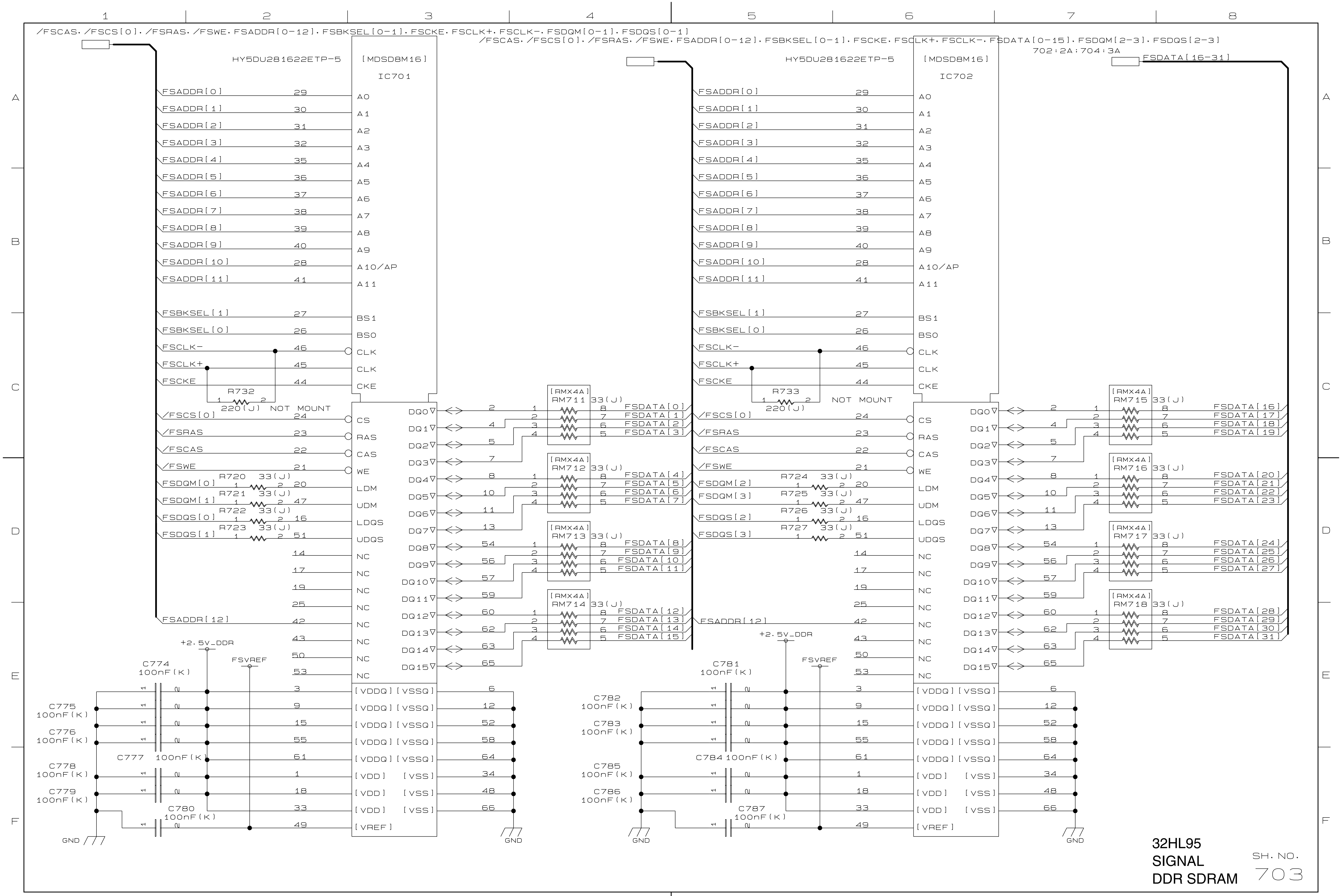
SH. NO.
701


/FSCAS,/FSCS[0-1],/FSRAS,/FSWE,FSADDR[0-12],FSBKSEL[0-1],FSCKE,FSCLK+,FSCLK-,FSDATA[0-31],FSDQM[0-3],FSDQS[0-3]
[U8532]
5/9
IC700
FSDATA[15]
FSDATA[14]
FSDATA[13]
FSDATA[12]
RM700
[RMX4A]
33(J)
FSDATA[11]
FSDATA[10]
FSDATA[9]
FSDATA[8]
RM701
FSDATA[7]
FSDATA[6]
FSDATA[5]
FSDATA[4]
RM702
FSDATA[3]
FSDATA[2]
FSDATA[1]
FSDATA[0]
RM703
FSDATA[31]
FSDATA[30]
FSDATA[29]
FSDATA[28]
RM704
FSDATA[27]
FSDATA[26]
FSDATA[25]
FSDATA[24]
RM705
FSDATA[23]
FSDATA[22]
FSDATA[21]
FSDATA[20]
RM706
FSDATA[19]
FSDATA[18]
FSDATA[17]
FSDATA[16]
RM737
B4 FSDATA0
A4 FSDATA1
B5 FSDATA2
A5 FSDATA3
B7 FSDATA4
A7 FSDATA5
B8 FSDATA6
A8 FSDATA7
B9 FSDATA8
A9 FSDATA9
B10 FSDATA10
A10 FSDATA11
B12 FSDATA12
A12 FSDATA13
B13 FSDATA14
A13 FSDATA15
B15 FSDATA16
A15 FSDATA17
B16 FSDATA18
A16 FSDATA19
B18 FSDATA20
A18 FSDATA21
B19 FSDATA22
A19 FSDATA23
B20 FSDATA24
A20 FSDATA25
B21 FSDATA26
A21 FSDATA27
B23 FSDATA28
A23 FSDATA29
B24 FSDATA30
A24 FSDATA31
FSBKSEL1 C20
FSBKSEL0 C21
FSCKE C4
FSRAS C24
FSCAS D24
FSWE C23
FSDQM3 B22
FSDQM2 B17
FSDQM1 A11
FSDQM0 A6
FSDQS3 A22
FSDQS2 A17
FSDQS1 B11
FSDQS0 B6
FSCS1 C22
FSCS0 D21
FSCLKn C5
FSCLKp D5
FSADDR12 C11
FSADDR11 C14
FSADDR10 D16
FSADDR9 C12
FSADDR8 C6
FSADDR7 C7
FSADDR6 C8
FSADDR5 C10
FSADDR4 C13
FSADDR3 C15
FSADDR2 C16
FSADDR1 C17
FSADDR0 C18
R736
FSBKSEL[1]
R735
FSBKSEL[0]
R734
FSCKE
[RMX4A]
RM707
33(J)
/FSRAS
/FSCAS
/FSWE
R740
FSDQM[2]
R739
FSDQM[3]
R738
FSDQM[0]
R737
FSDQM[1]
R744
FSDQS[2]
R743
FSDQS[3]
R742
FSDQS[0]
R741
FSDQS[1]
R716
R717
R718
R719
/FSCS[1]
/FSCS[0]
FSCLK-
FSCLK+
[RMX4A]
RM708 33(J)
FSADDR[11]
FSADDR[4]
FSADDR[9]
FSADDR[12]
R707
33(J)
FSADDR[10]
FSADDR[8]
FSADDR[7]
FSADDR[6]
FSADDR[5]
RM709 33(J)
[RMX4A]
FSADDR[3]
FSADDR[2]
FSADDR[1]
FSADDR[0]
RM710 33(J)
[RMX4A]

32HL95
SIGNAL
DDR I/F

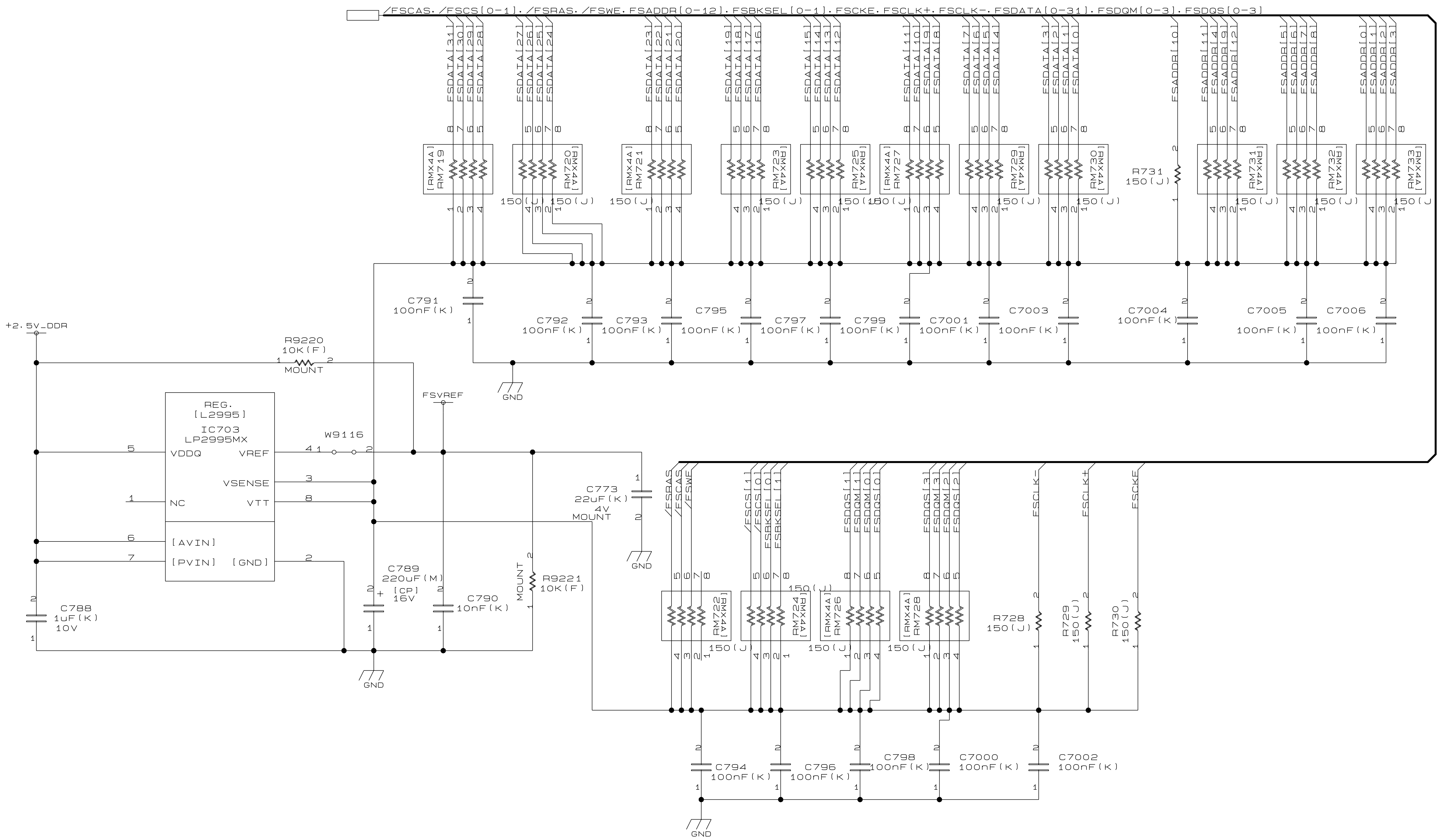
SH. NO.
702

(42/122)


/FSCAS, /FSCS[0], /FSRAS, /FSWE, FSADDR[0-12], FSBKSEL[0-1], FSCKE, FSCLK+, FSCLK-, FSDQM[0-1], FSDQS[0-1]
/FSCAS, /FSCS[0], /FSRAS, /FSWE, FSADDR[0-12], FSBKSEL[0-1], FSCKE, FSCLK+, FSCLK-, FSDATA[0-15], FSDQM[2-3], FSDQS[2-3]
702:2A:704:3A
FSDATA[16-31]
HY5DU281622ETP-5
[MDSD8M16]
IC701
IC702
FSADDR[0] 29 A0
FSADDR[1] 30 A1
FSADDR[2] 31 A2
FSADDR[3] 32 A3
FSADDR[4] 35 A4
FSADDR[5] 36 A5
FSADDR[6] 37 A6
FSADDR[7] 38 A7
FSADDR[8] 39 A8
FSADDR[9] 40 A9
FSADDR[10] 28 A10/AP
FSADDR[11] 41 A11
FSBKSEL[1] 27 BS1
FSBKSEL[0] 26 BS0
FSCLK- 46 CLK
FSCLK+ 45 CLK
FSCKE 44 CKE
R732
220(J) NOT MOUNT
R733
220(J) NOT MOUNT
/FSCS[0] 24 CS
/FSRAS 23 RAS
/FSCAS 22 CAS
/FSWE 21 WE
FSDQM[0] R720 33(J) 20 LDM
FSDQM[1] R721 33(J) 47 UDM
FSDQS[0] R722 33(J) 16 LDQS
FSDQS[1] R723 33(J) 51 UDQS
FSDQM[2] R724 33(J) 20 LDM
FSDQM[3] R725 33(J) 47 UDM
FSDQS[2] R726 33(J) 16 LDQS
FSDQS[3] R727 33(J) 51 UDQS
14 NC
17 NC
19 NC
25 NC
FSADDR[12] 42 NC
43 NC
50 NC
53 NC
DQ0 2
DQ1 4
DQ2 5
DQ3 7
DQ4 8
DQ5 10
DQ6 11
DQ7 13
DQ8 54
DQ9 56
DQ10 57
DQ11 59
DQ12 60
DQ13 62
DQ14 63
DQ15 65
[RMX4A] RM711 33(J)
[RMX4A] RM712 33(J)
[RMX4A] RM713 33(J)
[RMX4A] RM714 33(J)
[RMX4A] RM715 33(J)
[RMX4A] RM716 33(J)
[RMX4A] RM717 33(J)
[RMX4A] RM718 33(J)
FSDATA[0] FSDATA[1] FSDATA[2] FSDATA[3]
FSDATA[4] FSDATA[5] FSDATA[6] FSDATA[7]
FSDATA[8] FSDATA[9] FSDATA[10] FSDATA[11]
FSDATA[12] FSDATA[13] FSDATA[14] FSDATA[15]
FSDATA[16] FSDATA[17] FSDATA[18] FSDATA[19]
FSDATA[20] FSDATA[21] FSDATA[22] FSDATA[23]
FSDATA[24] FSDATA[25] FSDATA[26] FSDATA[27]
FSDATA[28] FSDATA[29] FSDATA[30] FSDATA[31]
+2.5V_DDR
FSVREF
C774 100nF(K)
C775 100nF(K)
C776 100nF(K)
C777 100nF(K)
C778 100nF(K)
C779 100nF(K)
C780 100nF(K)
C781 100nF(K)
C782 100nF(K)
C783 100nF(K)
C784 100nF(K)
C785 100nF(K)
C786 100nF(K)
C787 100nF(K)
3 [VDDQ] [VSSQ] 6
9 [VDDQ] [VSSQ] 12
15 [VDDQ] [VSSQ] 52
55 [VDDQ] [VSSQ] 58
61 [VDDQ] [VSSQ] 64
1 [VDD] [VSS] 34
18 [VDD] [VSS] 48
33 [VDD] [VSS] 66
49 [VREF]
GND
1 2 3 4 5 6 7 8
A B C D E F

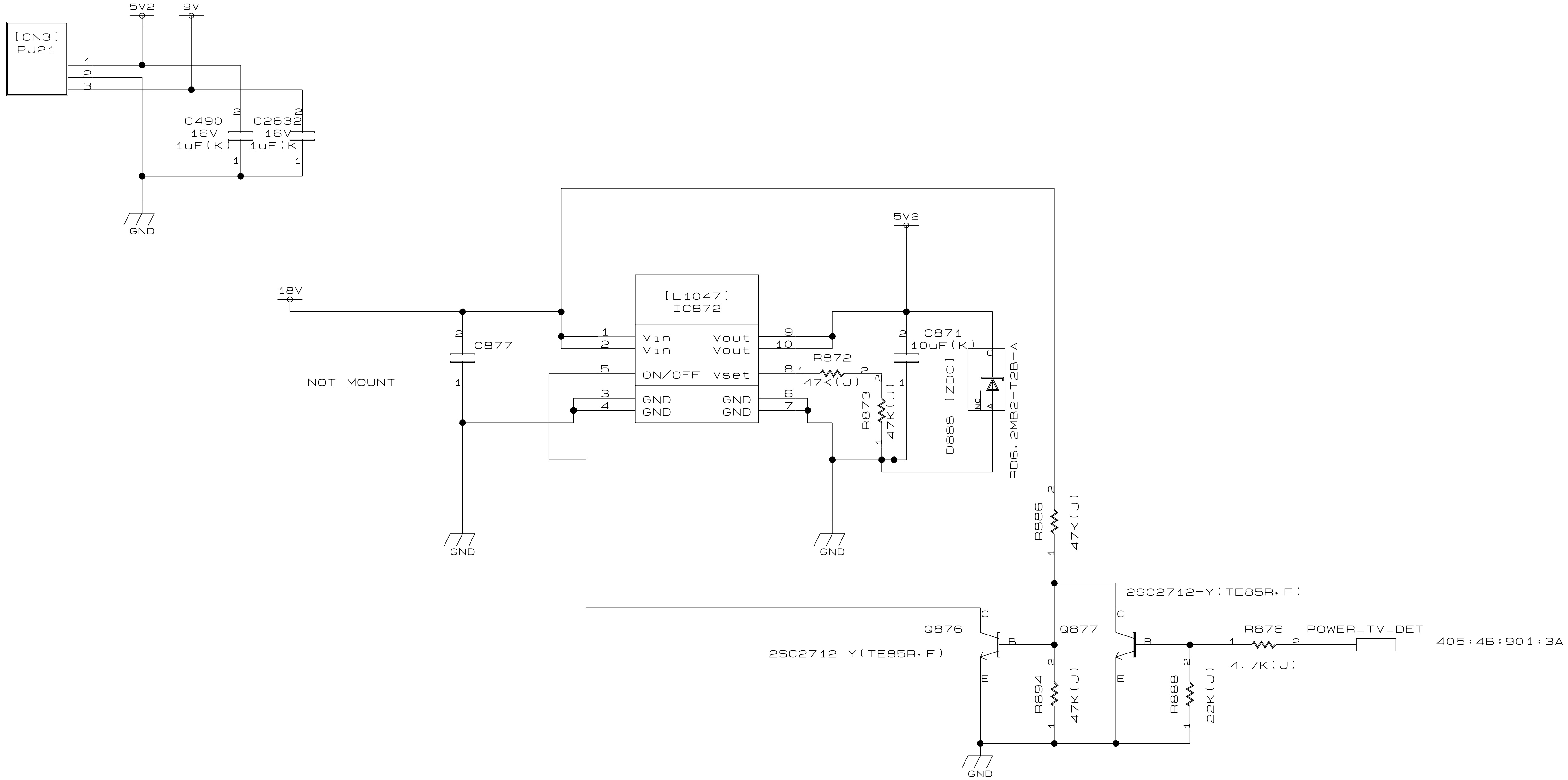
32HL95
SIGNAL
DDR SDRAM

SH. NO.
703


/FSCAS,/FSCS[0-1],/FSRAS,/FSWE,FSADDR[0-12],FSBKSEL[0-1],FSCKE,FSCLK+,FSCLK-,FSDATA[0-31],FSDQM[0-3],FSDQS[0-3]
FSDATA[31] FSDATA[30] FSDATA[29] FSDATA[28]
RM719 [RMX4A]
FSDATA[27] FSDATA[26] FSDATA[25] FSDATA[24]
RM720 [RMX4A] 150(J)
FSDATA[23] FSDATA[22] FSDATA[21] FSDATA[20]
RM721 [RMX4A] 150(J)
FSDATA[19] FSDATA[18] FSDATA[17] FSDATA[16]
RM723 [RMX4A] 150(J)
FSDATA[15] FSDATA[14] FSDATA[13] FSDATA[12]
RM725 [RMX4A] 150(J)
FSDATA[11] FSDATA[10] FSDATA[9] FSDATA[8]
RM727 [RMX4A] 150(J)
FSDATA[7] FSDATA[6] FSDATA[5] FSDATA[4]
RM729 [RMX4A] 150(J)
FSDATA[3] FSDATA[2] FSDATA[1] FSDATA[0]
RM730 [RMX4A] 150(J)
FSADDR[10]
R731 150(J)
FSADDR[11] FSADDR[4] FSADDR[9] FSADDR[12]
RM731 [RMX4A] 150(J)
FSADDR[5] FSADDR[6] FSADDR[7] FSADDR[8]
RM732 [RMX4A] 150(J)
FSADDR[0] FSADDR[1] FSADDR[2] FSADDR[3]
RM733 [RMX4A] 150(J)
C791 100nF(K)
C792 100nF(K)
C793 100nF(K)
C795 100nF(K)
C797 100nF(K)
C799 100nF(K)
C7001 100nF(K)
C7003 100nF(K)
C7004 100nF(K)
C7005 100nF(K)
C7006 100nF(K)
GND
+2.5V_DDR
R9220 10K(F) MOUNT
FSVREF
REG. [L2995]
IC703 LP2995MX
VDDQ
VREF
VSENSE
NC
VTT
[AVIN]
[PVIN]
[GND]
W9116
C773 22uF(K) 4V MOUNT
C789 220uF(M) [CP] 16V
C790 10nF(K)
R9221 10K(F) MOUNT
C788 1uF(K) 10V
GND
/FSRAS /FSCAS /FSWE
RM722 [RMX4A] 150(J)
/FSCS[1] /FSCS[0] FSBKSEL[0] FSBKSEL[1]
RM724 [RMX4A] 150(J)
FSDQS[1] FSDQS[0] FSDQM[1] FSDQM[0]
RM726 [RMX4A] 150(J)
FSDQS[3] FSDQS[2] FSDQM[3] FSDQM[2]
RM728 [RMX4A] 150(J)
FSCLK-
FSCLK+
FSCKE
R728 150(J)
R729 150(J)
R730 150(J)
C794 100nF(K)
C796 100nF(K)
C798 100nF(K)
C7000 100nF(K)
C7002 100nF(K)
GND

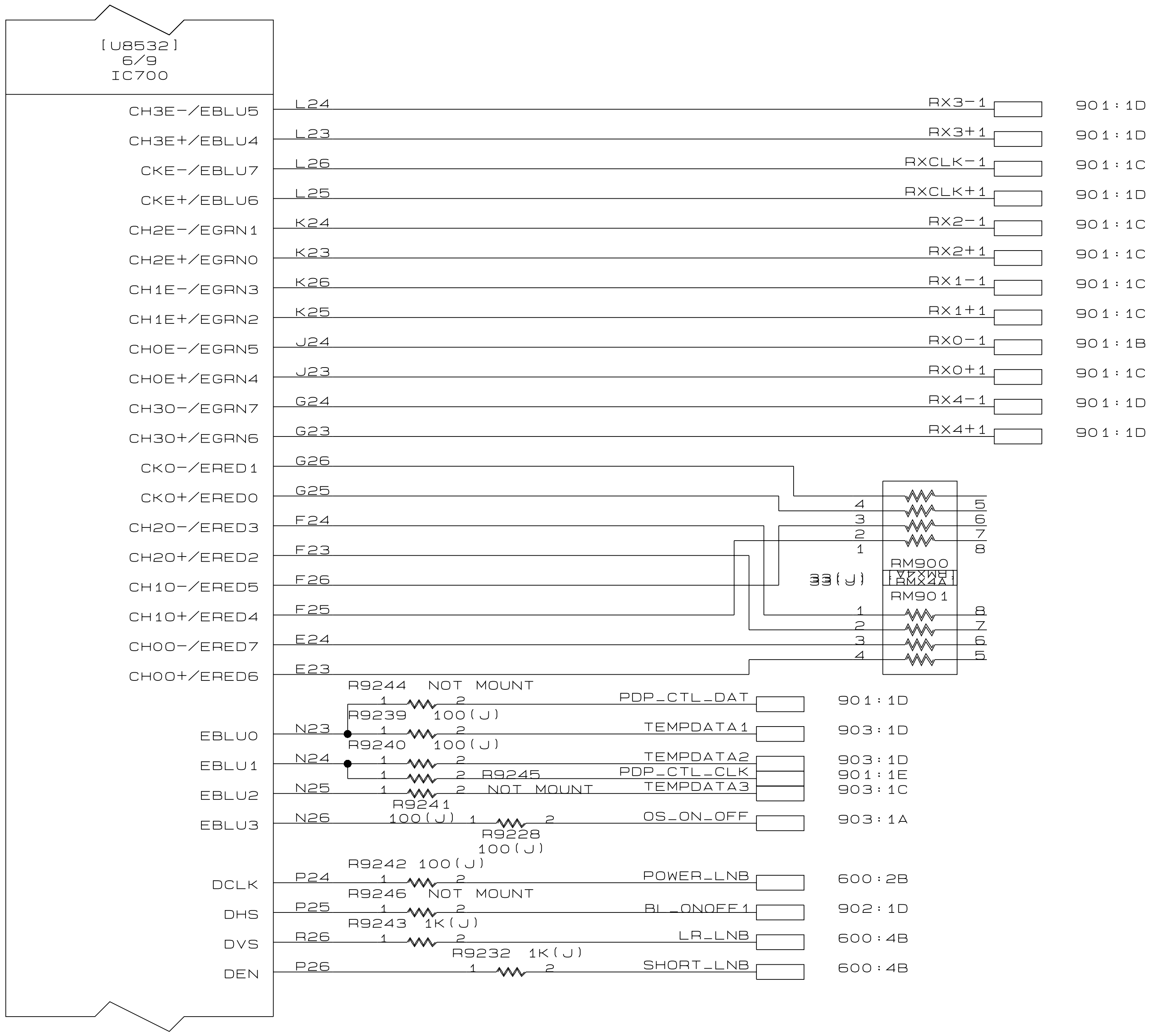
32HL95
SIGNAL
DDR TERMINATION

SH. NO.
704


[CN3]
PJ21
1
2
3
5V2
9V
C490
16V
1uF(K)
C2632
16V
1uF(K)
GND
18V
C877
NOT MOUNT
[L1047]
IC872
Vin
Vin
ON/OFF
GND
GND
Vout
Vout
Vset
GND
GND
1
2
5
3
4
9
10
8
6
7
R872
47K(J)
R873
47K(J)
5V2
C871
10uF(K)
[ZDC]
D888
RD6.2MB2-T2B-A
GND
GND
R886
47K(J)
Q876
2SC2712-Y(TE85R.F)
Q877
2SC2712-Y(TE85R.F)
R894
47K(J)
R888
22K(J)
R876
4.7K(J)
POWER_TV_DET
405:4B:901:3A
GND

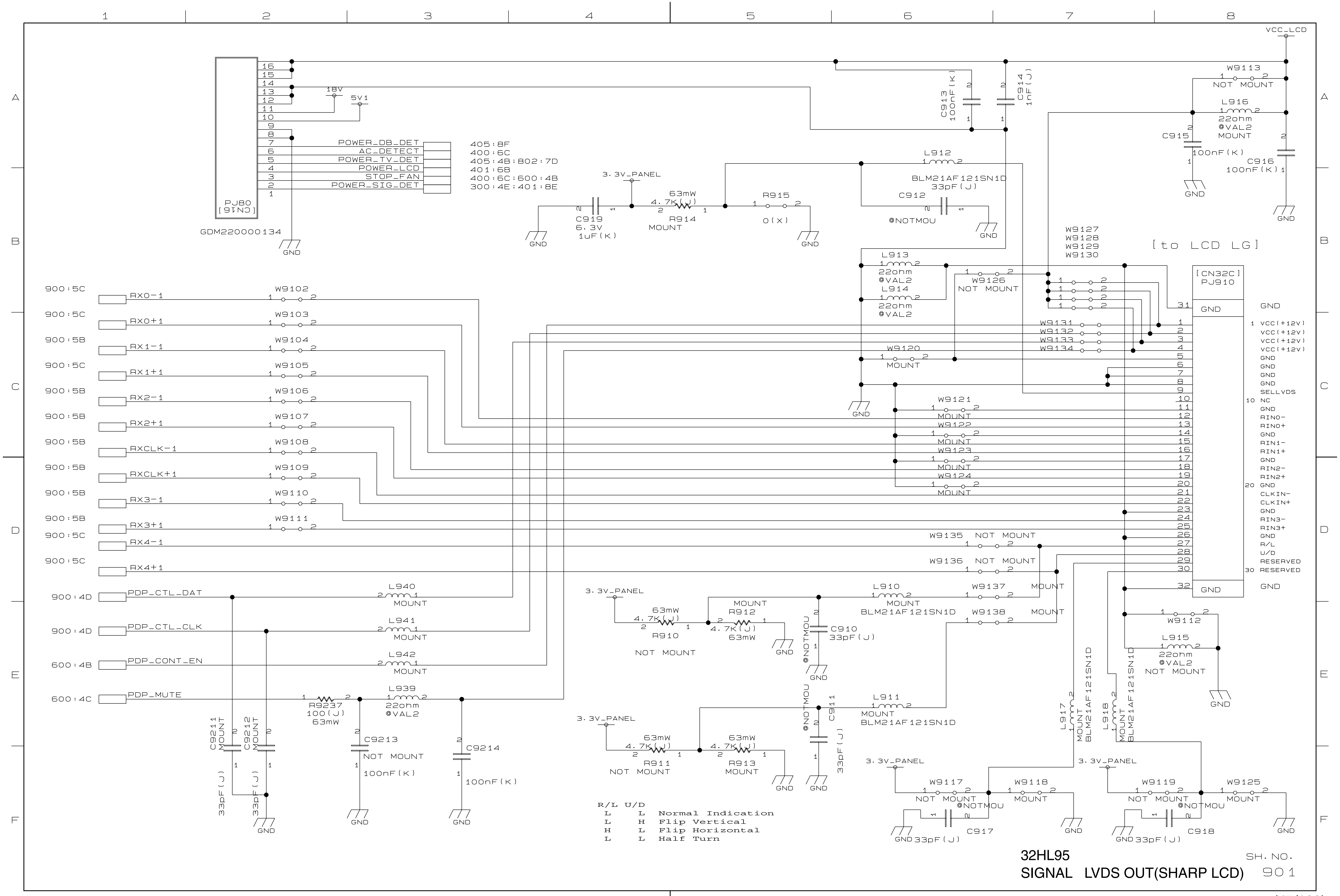
32HL95
SIGNAL
DCDC CONV.

SH. NO.
802


[U8532]
6/9
IC700
CH3E-/EBLU5 L24 RX3-1 901:1D
CH3E+/EBLU4 L23 RX3+1 901:1D
CKE-/EBLU7 L26 RXCLK-1 901:1C
CKE+/EBLU6 L25 RXCLK+1 901:1D
CH2E-/EGRN1 K24 RX2-1 901:1C
CH2E+/EGRN0 K23 RX2+1 901:1C
CH1E-/EGRN3 K26 RX1-1 901:1C
CH1E+/EGRN2 K25 RX1+1 901:1C
CH0E-/EGRN5 J24 RX0-1 901:1B
CH0E+/EGRN4 J23 RX0+1 901:1C
CH30-/EGRN7 G24 RX4-1 901:1D
CH30+/EGRN6 G23 RX4+1 901:1D
CK0-/ERED1 G26
CK0+/ERED0 G25
CH20-/ERED3 F24
CH20+/ERED2 F23
CH10-/ERED5 F26
CH10+/ERED4 F25
CH00-/ERED7 E24
CH00+/ERED6 E23
RM900
RM901
33(J)
EBLU0 N23
EBLU1 N24
EBLU2 N25
EBLU3 N26
DCLK P24
DHS P25
DVS R26
DEN P26
R9244 NOT MOUNT
R9239 100(J)
R9240 100(J)
R9245 NOT MOUNT
R9241 100(J)
R9228 100(J)
R9242 100(J)
R9246 NOT MOUNT
R9243 1K(J)
R9232 1K(J)
PDP_CTL_DAT 901:1D
TEMPDATA1 903:1D
TEMPDATA2 903:1D
PDP_CTL_CLK 901:1E
TEMPDATA3 903:1C
OS_ON_OFF 903:1A
POWER_LNB 600:2B
BL_ONOFF1 902:1D
LR_LNB 600:4B
SHORT_LNB 600:4B

32HL95
SIGNAL
LVDS OUT

SH. NO.
900



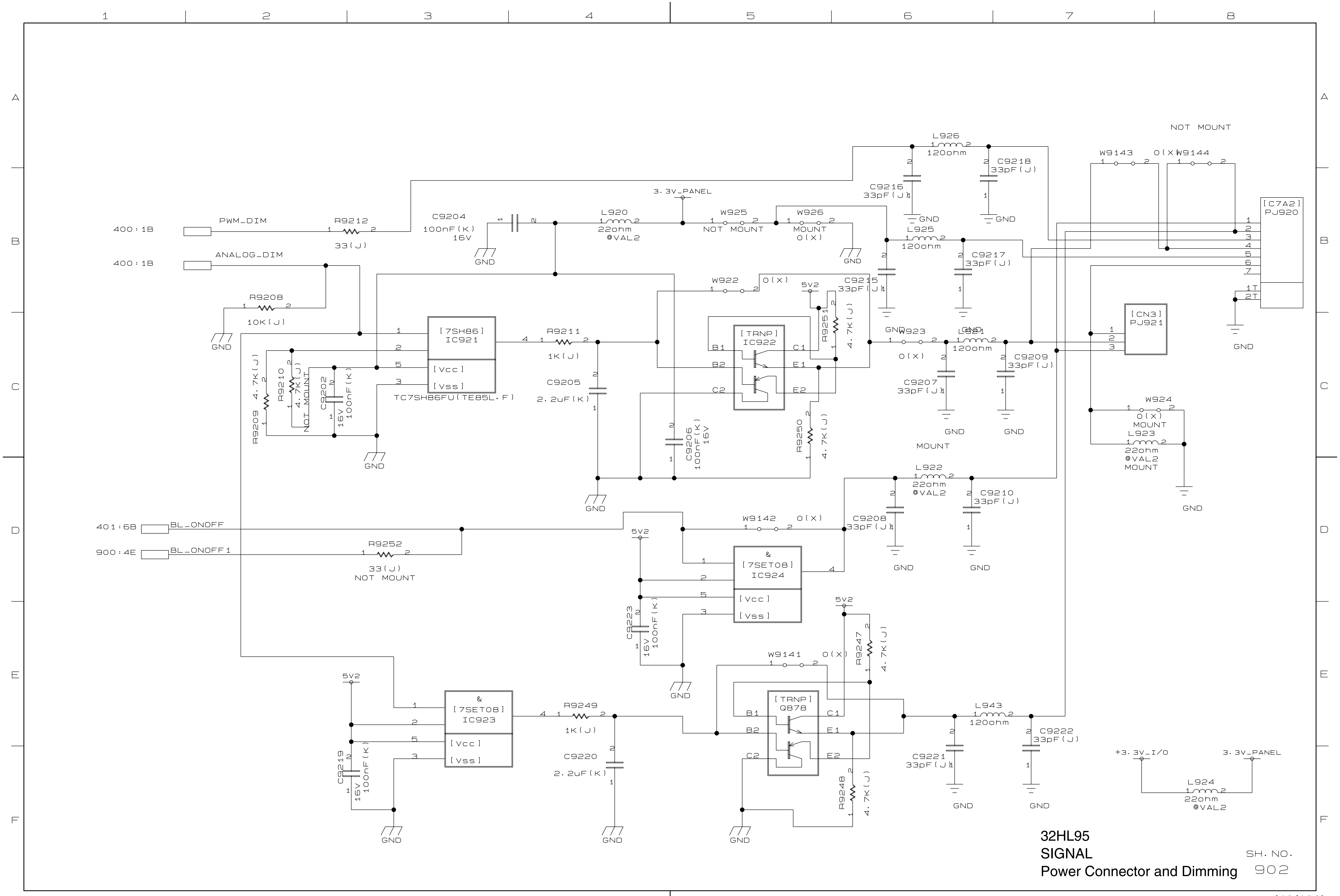
PJ80
[CN16]
GDM220000134
18V
5V1
POWER_DB_DET
AC_DETECT
POWER_TV_DET
POWER_LCD
STOP_FAN
POWER_SIG_DET
405:8F
400:6C
405:4B:802:7D
401:6B
400:6C:600:4B
300:4E:401:8E
VCC_LCD
C913 100nF(K)
C914 1nF(J)
W9113 NOT MOUNT
L916 22ohm @VAL2 MOUNT
C915 100nF(K)
C916 100nF(K)
L912 BLM21AF121SN1D
C912 33pF(J) @NOTMOU
3.3V_PANEL
C919 6.3V 1uF(K)
R914 4.7K(J) 63mW MOUNT
R915 0(X)
GND
[to LCD LG]
W9127
W9128
W9129
W9130
L913 22ohm @VAL2
L914 22ohm @VAL2
W9126 NOT MOUNT
[CN32C] PJ910
W9131
W9132
W9133
W9134
W9120 MOUNT
W9121 MOUNT
W9122 MOUNT
W9123 MOUNT
W9124 MOUNT
GND
1 VCC(+12V)
VCC(+12V)
VCC(+12V)
VCC(+12V)
GND
GND
GND
GND
SELLVDS
10 NC
GND
RIN0-
RIN0+
GND
RIN1-
RIN1+
GND
RIN2-
RIN2+
20 GND
CLKIN-
CLKIN+
GND
RIN3-
RIN3+
GND
R/L
U/D
RESERVED
30 RESERVED
GND
900:5C RX0-1 W9102
900:5C RX0+1 W9103
900:5B RX1-1 W9104
900:5C RX1+1 W9105
900:5B RX2-1 W9106
900:5B RX2+1 W9107
900:5B RXCLK-1 W9108
900:5B RXCLK+1 W9109
900:5B RX3-1 W9110
900:5B RX3+1 W9111
900:5C RX4-1
900:5C RX4+1
W9135 NOT MOUNT
W9136 NOT MOUNT
900:4D PDP_CTL_DAT L940 MOUNT
900:4D PDP_CTL_CLK L941 MOUNT
600:4B PDP_CONT_EN L942 MOUNT
600:4C PDP_MUTE L939 22ohm @VAL2
R9237 100(J) 63mW
C9211 MOUNT 33pF(J)
C9212 MOUNT 33pF(J)
C9213 NOT MOUNT 100nF(K)
C9214 100nF(K)
R910 4.7K(J) 63mW NOT MOUNT
R912 4.7K(J) 63mW MOUNT
C910 33pF(J) @NOTMOU
L910 MOUNT BLM21AF121SN1D
W9137 MOUNT
W9138 MOUNT
R911 4.7K(J) 63mW NOT MOUNT
R913 4.7K(J) 63mW MOUNT
C911 33pF(J) @NOTMOU
L911 MOUNT BLM21AF121SN1D
W9112
L915 22ohm @VAL2 NOT MOUNT
L917 MOUNT BLM21AF121SN1D
L918 MOUNT BLM21AF121SN1D
W9117 NOT MOUNT
W9118 MOUNT
C917 33pF(J) @NOTMOU
W9119 NOT MOUNT
W9125 MOUNT
C918 33pF(J) @NOTMOU

R/L	U/D	
L	L	Normal Indication
L	H	Flip Vertical
H	L	Flip Horizontal
L	L	Half Turn

32HL95

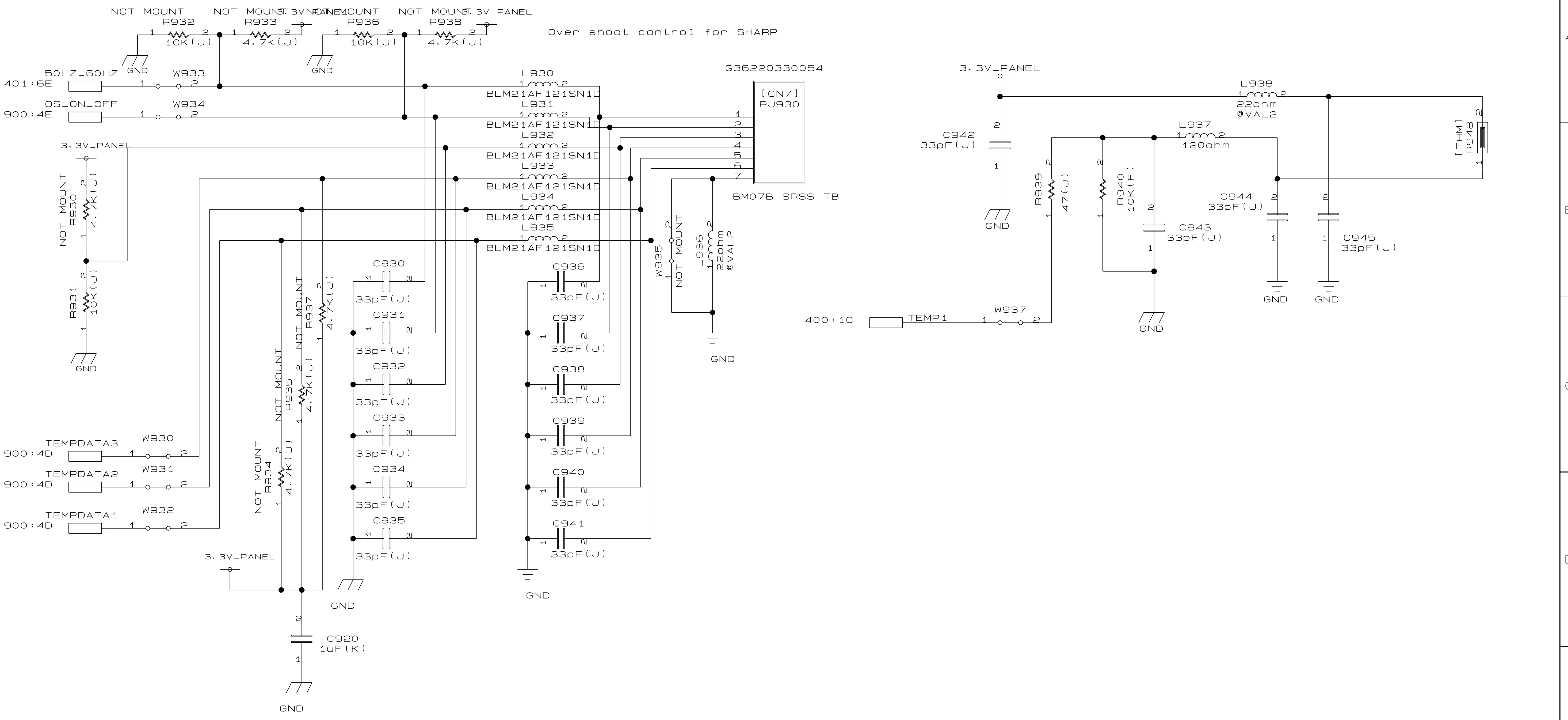
SIGNAL LVDS OUT(SHARP LCD)

SH. NO. 901


400:1B
PWM_DIM
R9212
33(J)
400:1B
ANALOG_DIM
R9208
10K(J)
GND
C9204
100nF(K)
16V
L920
22ohm
@VAL2
3.3V_PANEL
W925
NOT MOUNT
W926
MOUNT
0(X)
L926
120ohm
C9216
33pF(J)
C9218
33pF(J)
L925
120ohm
C9217
33pF(J)
C9215
33pF(J)
W922
0(X)
5V2
R9251
4.7K(J)
[7SH86]
IC921
[Vcc]
[Vss]
TC7SH86FU(TE85L.F)
R9211
1K(J)
C9205
2.2uF(K)
[TRNP]
IC922
B1
B2
C2
C1
E1
E2
C9206
100nF(K)
16V
R9250
4.7K(J)
R9209
4.7K(J)
R9210
4.7K(J)
NOT MOUNT
C9202
16V
100nF(K)
W923
0(X)
L921
120ohm
C9207
33pF(J)
C9209
33pF(J)
MOUNT
NOT MOUNT
W9143
0(X)
W9144
[C7A2]
PJ920
1
2
3
4
5
6
7
1T
2T
[CN3]
PJ921
W924
0(X)
MOUNT
L923
22ohm
@VAL2
MOUNT
L922
22ohm
@VAL2
C9210
33pF(J)
C9208
33pF(J)
401:6B
BL_ONOFF
900:4E
BL_ONOFF1
R9252
33(J)
NOT MOUNT
W9142
0(X)
&
[7SET08]
IC924
C9223
16V
100nF(K)
5V2
R9247
4.7K(J)
W9141
0(X)
[TRNP]
Q878
L943
120ohm
C9221
33pF(J)
C9222
33pF(J)
R9248
4.7K(J)
&
[7SET08]
IC923
R9249
1K(J)
C9220
2.2uF(K)
C9219
16V
100nF(K)
+3.3V_I/O
3.3V_PANEL
L924
22ohm
@VAL2
1
2
3
4
5
6
7
8
A
B
C
D
E
F

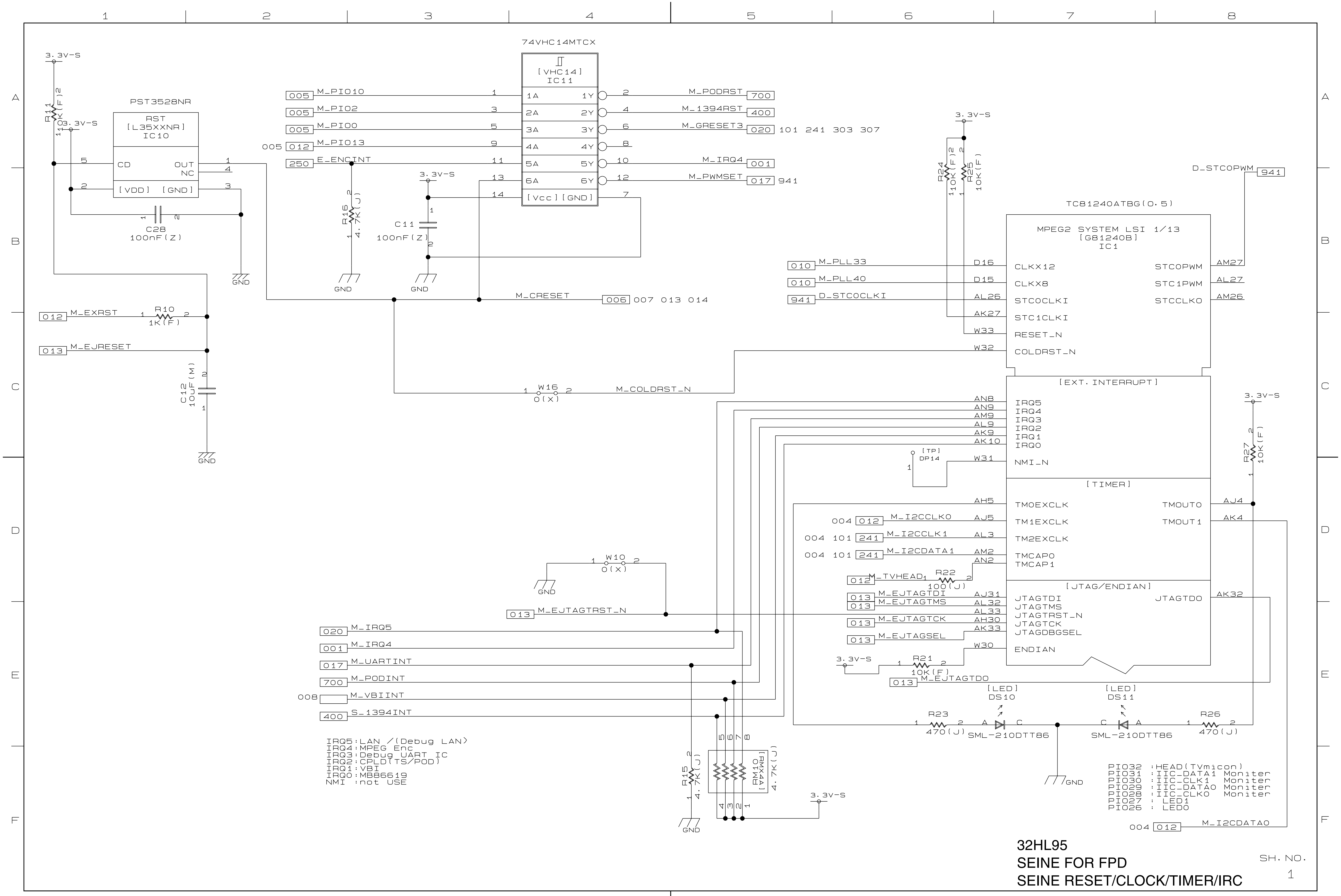
32HL95
SIGNAL
Power Connector and Dimming

SH. NO.
902


NOT MOUNT
R932
10K(J)
NOT MOUNT
R933
4.7K(J)
3.3V_PANEL
NOT MOUNT
R936
10K(J)
NOT MOUNT
R938
4.7K(J)
3.3V_PANEL
Over shoot control for SHARP
GND
401:6E
50HZ_60HZ
W933
900:4E
OS_ON_OFF
W934
L930
BLM21AF121SN1D
L931
BLM21AF121SN1D
L932
BLM21AF121SN1D
L933
BLM21AF121SN1D
L934
BLM21AF121SN1D
L935
BLM21AF121SN1D
G36220330054
[CN7]
PJ930
BM07B-SRSS-TB
3.3V_PANEL
NOT MOUNT
R930
4.7K(J)
R931
10K(J)
C930
C931
C932
C933
C934
C935
33pF(J)
C936
C937
C938
C939
C940
C941
33pF(J)
W935
NOT MOUNT
L936
22ohm
@VAL2
NOT MOUNT
R937
4.7K(J)
NOT MOUNT
R935
4.7K(J)
NOT MOUNT
R934
4.7K(J)
900:4D
TEMPDATA3
W930
900:4D
TEMPDATA2
W931
900:4D
TEMPDATA1
W932
3.3V_PANEL
C920
1uF(K)
3.3V_PANEL
C942
33pF(J)
L938
22ohm
@VAL2
[THM]
R948
L937
120ohm
R939
47(J)
R940
10K(F)
C943
33pF(J)
C944
33pF(J)
C945
33pF(J)
400:1C
TEMP1
W937
GND

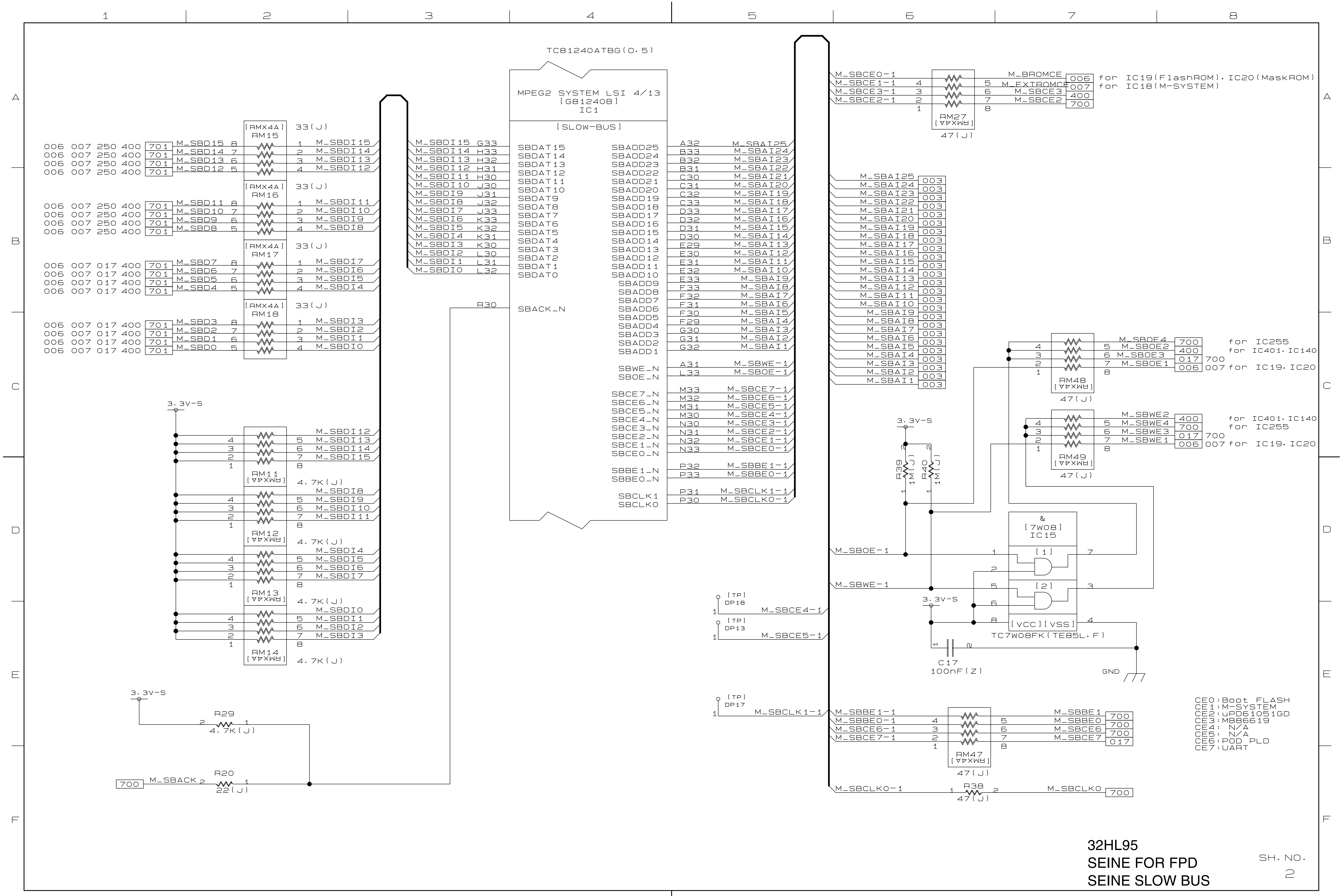
32HL95
SIGNAL
LVDS Power and Others

SH. NO.
903


74VHC14MTCX
[VHC14]
IC11
PST3528NR
RST
[L35XXNR]
IC10
CD
OUT
NC
[VDD] [GND]
3.3V-S
R11
10K(F)
C28
100nF(Z)
GND
005 M_PIO10
005 M_PIO2
005 M_PIO0
005 012 M_PIO13
250 E_ENCINT
M_PODRST 700
M_1394RST 400
M_GRESET3 020 101 241 303 307
M_IRQ4 001
M_PWMSET 017 941
R16
4.7K(J)
C11
100nF(Z)
M_CRESET 006 007 013 014
012 M_EXRST
R10
1K(F)
013 M_EJRESET
C12
10uF(M)
W16
0(X)
M_COLDRST_N
3.3V-S
R24
10K(F)
R25
10K(F)
D_STC0PWM 941
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 1/13
[G81240B]
IC1
010 M_PLL33 D16 CLKX12
010 M_PLL40 D15 CLKX8
941 D_STC0CLKI AL26 STC0CLKI
AK27 STC1CLKI
W33 RESET_N
W32 COLDRST_N
STC0PWM AM27
STC1PWM AL27
STCCLKO AM26
[EXT. INTERRUPT]
AN8 IRQ5
AN9 IRQ4
AM9 IRQ3
AL9 IRQ2
AK9 IRQ1
AK10 IRQ0
[TP] DP14
W31 NMI_N
[TIMER]
AH5 TM0EXCLK
004 012 M_I2CCLK0 AJ5 TM1EXCLK
004 101 241 M_I2CCLK1 AL3 TM2EXCLK
004 101 241 M_I2CDATA1 AM2 TMCAP0
AN2 TMCAP1
TMOUT0 AJ4
TMOUT1 AK4
012 M_TVHEAD
R22
100(J)
[JTAG/ENDIAN]
013 M_EJTAGTDI AJ31 JTAGTDI
013 M_EJTAGTMS AL32 JTAGTMS
AL33 JTAGTRST_N
013 M_EJTAGTCK AH30 JTAGTCK
013 M_EJTAGSEL AK33 JTAGDBGSEL
W30 ENDIAN
JTAGTDO AK32
R21
10K(F)
013 M_EJTAGTDO
R27
10K(F)
W10
0(X)
013 M_EJTAGTRST_N
020 M_IRQ5
001 M_IRQ4
017 M_UARTINT
700 M_PODINT
008 M_VBIINT
400 S_1394INT
R15
4.7K(J)
RM10
[RMX4A]
4.7K(J)
[LED]
DS10
R23
470(J)
SML-210DTT86
[LED]
DS11
R26
470(J)
SML-210DTT86
IRQ5:LAN /(Debug LAN)
IRQ4:MPEG Enc
IRQ3:Debug UART IC
IRQ2:CPLD(TS/POD)
IRQ1:VBI
IRQ0:MB86619
NMI :not USE
PIO32 :HEAD(TVmicon)
PIO31 :IIC_DATA1 Moniter
PIO30 :IIC_CLK1 Moniter
PIO29 :IIC_DATA0 Moniter
PIO28 :IIC_CLK0 Moniter
PIO27 : LED1
PIO26 : LED0
004 012 M_I2CDATA0

32HL95
SEINE FOR FPD
SEINE RESET/CLOCK/TIMER/IRC

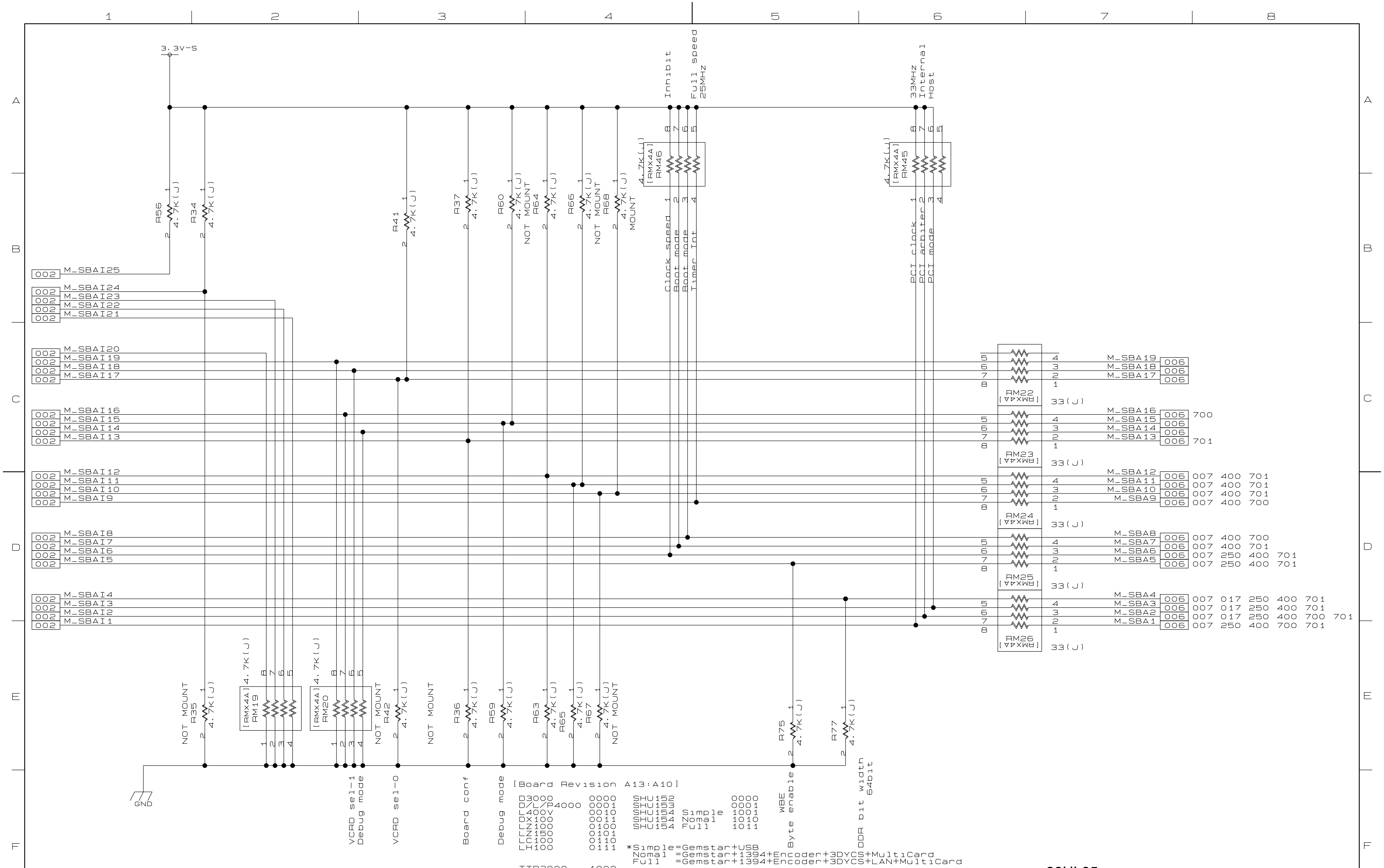
SH. NO. 1


TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 4/13
[G81240B]
IC1
[SLOW-BUS]
SBDAT15 SBDAT14 SBDAT13 SBDAT12 SBDAT11 SBDAT10 SBDAT9 SBDAT8 SBDAT7 SBDAT6 SBDAT5 SBDAT4 SBDAT3 SBDAT2 SBDAT1 SBDAT0
SBACK_N
SBADD25 … SBADD1
SBWE_N
SBOE_N
SBCE7_N SBCE6_N SBCE5_N SBCE4_N SBCE3_N SBCE2_N SBCE1_N SBCE0_N
SBBE1_N
SBBE0_N
SBCLK1
SBCLK0
G33 H33 H32 H31 H30 J30 J31 J32 J33 K33 K32 K31 K30 L30 L31 L32
R30
A32 B33 B32 B31 C30 C31 C32 C33 D33 D32 D31 D30 E29 E30 E31 E32 E33 F33 F32 F31 F30 F29 G30 G31 G32
A31 L33
M33 M32 M31 M30 N30 N31 N32 N33
P32 P33
P31 P30
M_SBDI15 … M_SBDI0
M_SBD15 … M_SBD0
006 007 250 400
006 007 017 400
701
[RMX4A]
RM15
RM16
RM17
RM18
33(J)
RM11
RM12
RM13
RM14
[RMX4A]
4.7K(J)
3.3V-S
M_SBAI25 … M_SBAI1
003
M_SBWE-1
M_SBOE-1
M_SBCE7-1 … M_SBCE0-1
M_SBBE1-1
M_SBBE0-1
M_SBCLK1-1
M_SBCLK0-1
M_SBCE0-1
M_SBCE1-1
M_SBCE3-1
M_SBCE2-1
RM27
[RMX4A]
47(J)
M_BROMCE
M_EXTROMCE
M_SBCE3
M_SBCE2
006
007
400
700
for IC19(FlashROM), IC20(MaskROM)
for IC18(M-SYSTEM)
RM48
[RMX4A]
47(J)
M_SBOE4
M_SBOE2
M_SBOE3
M_SBOE1
700
400
017 700
006 007
for IC255
for IC401, IC140
for IC19, IC20
RM49
[RMX4A]
47(J)
M_SBWE2
M_SBWE4
M_SBWE3
M_SBWE1
for IC401, IC140
for IC255
for IC19, IC20
R39
1M(J)
R40
1M(J)
&
[7W08]
IC15
[1]
[2]
[VCC][VSS]
TC7W08FK(TE85L,F)
C17
100nF(Z)
GND
[TP]
DP18
M_SBCE4-1
[TP]
DP13
M_SBCE5-1
[TP]
DP17
M_SBCLK1-1
RM47
[RMX4A]
47(J)
M_SBBE1
M_SBBE0
M_SBCE6
M_SBCE7
700
017
M_SBCLK0-1
R38
47(J)
M_SBCLK0
R29
4.7K(J)
R20
22(J)
M_SBACK
1 2 3 4 5 6 7 8
A B C D E F

CE0:Boot FLASH
CE1:M-SYSTEM
CE2:uPD61051GD
CE3:MB86619
CE4: N/A
CE5: N/A
CE6:POD_PLD
CE7:UART

32HL95
SEINE FOR FPD
SEINE SLOW BUS

SH. NO.
2


3.3V-S
GND
Inhibit
Full speed
25MHz
33MHz
Internal
Host
4.7K(J) [RMX4A] RM46
4.7K(J) [RMX4A] RM45
Clock speed
Boot mode
Boot mode
Timer Int
PCI clock
PCI arbiter
PCI mode
R56 4.7K(J)
R34 4.7K(J)
R41 4.7K(J)
R37 4.7K(J)
R60 4.7K(J)
R64 4.7K(J) NOT MOUNT
R66 4.7K(J)
R68 4.7K(J) NOT MOUNT
4.7K(J) MOUNT
002 M_SBAI25
002 M_SBAI24
002 M_SBAI23
002 M_SBAI22
002 M_SBAI21
002 M_SBAI20
002 M_SBAI19
002 M_SBAI18
002 M_SBAI17
002 M_SBAI16
002 M_SBAI15
002 M_SBAI14
002 M_SBAI13
002 M_SBAI12
002 M_SBAI11
002 M_SBAI10
002 M_SBAI9
002 M_SBAI8
002 M_SBAI7
002 M_SBAI6
002 M_SBAI5
002 M_SBAI4
002 M_SBAI3
002 M_SBAI2
002 M_SBAI1
RM22 [RMX4A] 33(J)
RM23 [RMX4A] 33(J)
RM24 [RMX4A] 33(J)
RM25 [RMX4A] 33(J)
RM26 [RMX4A] 33(J)
M_SBA19 006
M_SBA18 006
M_SBA17 006
M_SBA16 006 700
M_SBA15 006
M_SBA14 006
M_SBA13 006 701
M_SBA12 006 007 400 701
M_SBA11 006 007 400 701
M_SBA10 006 007 400 701
M_SBA9 006 007 400 700
M_SBA8 006 007 400 700
M_SBA7 006 007 400 701
M_SBA6 006 007 250 400 701
M_SBA5 006 007 250 400 701
M_SBA4 006 007 017 250 400 701
M_SBA3 006 007 017 250 400 701
M_SBA2 006 007 017 250 400 700 701
M_SBA1 006 007 250 400 700 701
R35 4.7K(J) NOT MOUNT
4.7K(J) [RMX4A] RM19
4.7K(J) [RMX4A] RM20
R42 4.7K(J) NOT MOUNT
NOT MOUNT
R36 4.7K(J)
R59 4.7K(J)
R63 4.7K(J)
R65 4.7K(J)
R67 4.7K(J) NOT MOUNT
R75 4.7K(J)
R77 4.7K(J)
VCRD sel-1
Debug mode
VCRD sel-0
Board conf
Debug mode
WBE
Byte enable
DDR bit width
64bit

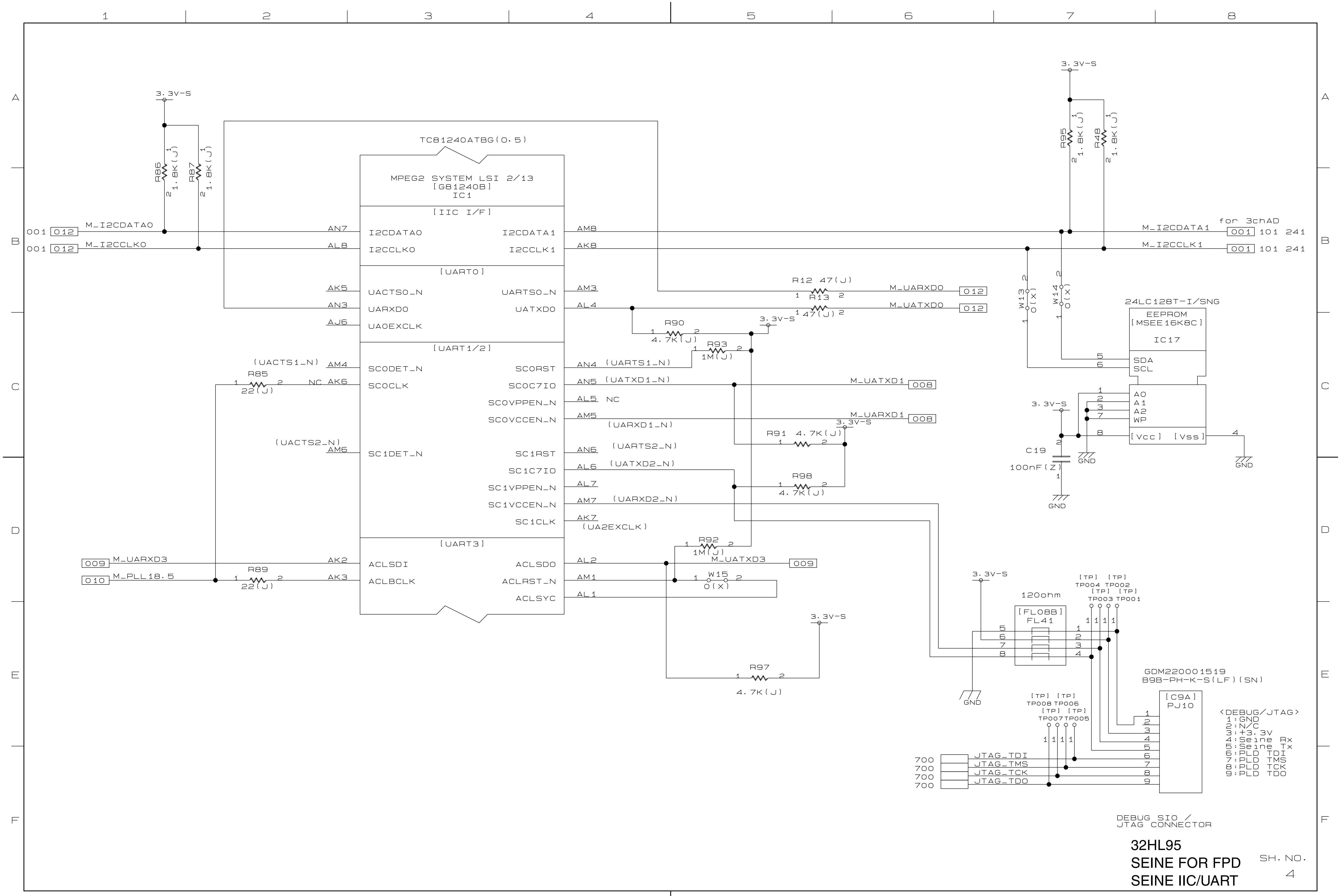
[Board Revision A13:A10]

D3000	0000	SHU152		0000
D/L/P4000	0001	SHU153		0001
L400V	0010	SHU154	Simple	1001
DX100	0011	SHU154	Nomal	1010
LZ100	0100	SHU154	Full	1011
LZ150	0101			
LC100	0110			
LH100	0111			
TTD3000	1000			

*Simple=Gemstar+USB
Nomal =Gemstar+1394+Encoder+3DYCS+MultiCard
Full =Gemstar+1394+Encoder+3DYCS+LAN+MultiCard

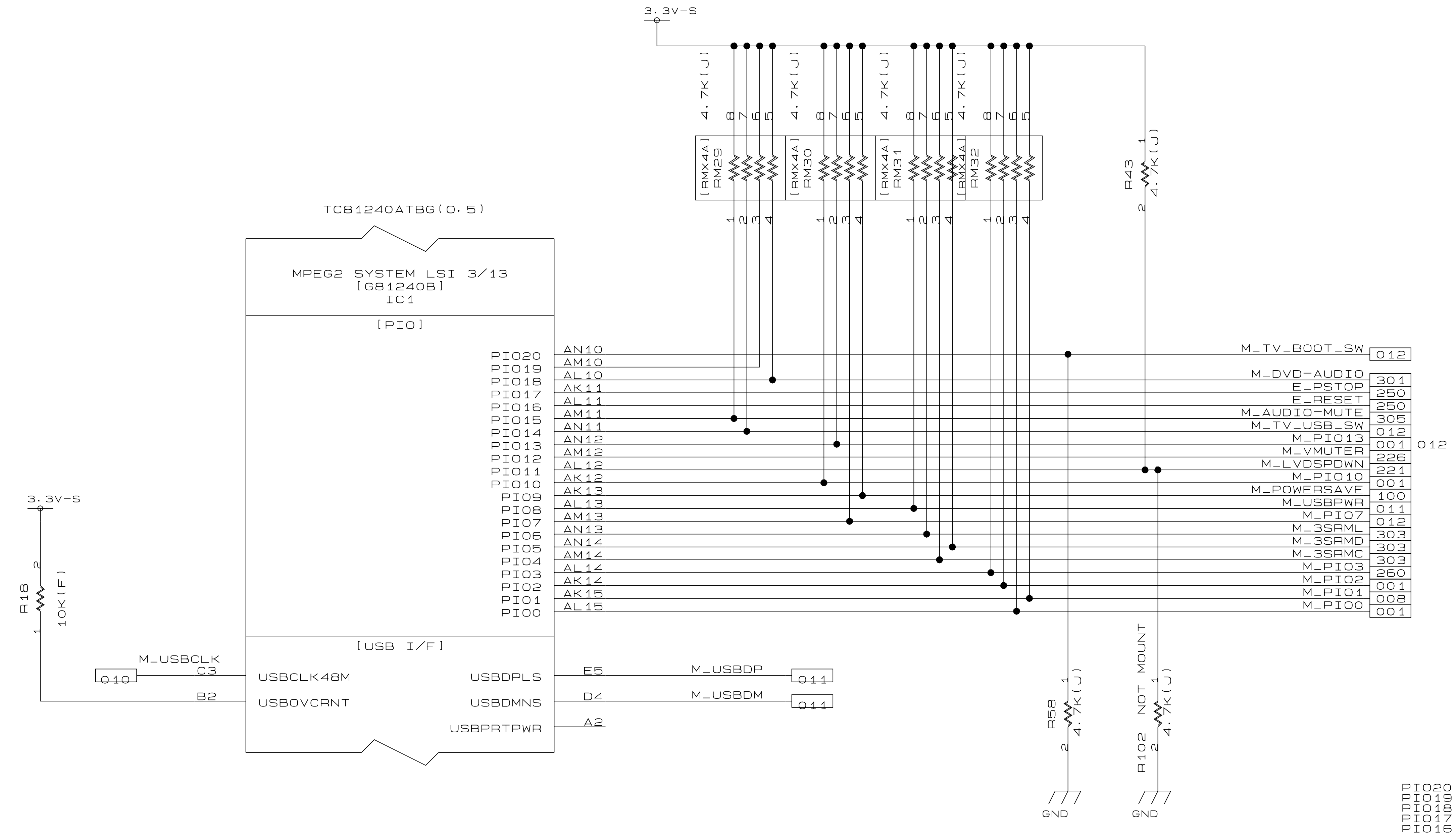
32HL95
SEINE FOR FPD
SLOW BUS ADDRESS REGISTER

SH. NO.
3


TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 2/13
[G81240B]
IC1
[IIC I/F]
I2CDATA0
I2CCLK0
I2CDATA1
I2CCLK1
[UART0]
UACTS0_N
UARXD0
UA0EXCLK
UARTS0_N
UATXD0
[UART1/2]
SC0DET_N
SC0CLK
SC1DET_N
SC0RST
SC0C7IO
SC0VPPEN_N
SC0VCCEN_N
SC1RST
SC1C7IO
SC1VPPEN_N
SC1VCCEN_N
SC1CLK
[UART3]
ACLSDI
ACLBCLK
ACLSDO
ACLRST_N
ACLSYC
AN7
AL8
AK5
AN3
AJ6
AM4
AK6
AM6
AK2
AK3
AM8
AK8
AM3
AL4
AN4
AN5
AL5
AM5
AN6
AL6
AL7
AM7
AK7
AL2
AM1
AL1
3.3V-S
R86 1.8K(J)
R87 1.8K(J)
R95 1.8K(J)
R48 1.8K(J)
001 012 M_I2CDATA0
001 012 M_I2CCLK0
M_I2CDATA1 001 101 241
M_I2CCLK1 001 101 241
for 3chAD
R12 47(J)
R13 47(J)
M_UARXD0 012
M_UATXD0 012
R90 4.7K(J)
R93 1M(J)
(UACTS1_N)
R85 22(J)
NC
(UACTS2_N)
(UARTS1_N)
(UATXD1_N)
NC
(UARXD1_N)
M_UATXD1 008
M_UARXD1 008
R91 4.7K(J)
(UARTS2_N)
(UATXD2_N)
R98 4.7K(J)
(UARXD2_N)
(UA2EXCLK)
R92 1M(J)
009 M_UARXD3
010 M_PLL18.5
R89 22(J)
M_UATXD3 009
W15 0(X)
R97 4.7K(J)
W13 0(X)
W14 0(X)
24LC128T-I/SNG
EEPROM
[MSEE16K8C]
IC17
SDA
SCL
A0
A1
A2
WP
[Vcc]
[Vss]
C19
100nF(Z)
GND
120ohm
[FL08B]
FL41
[TP] [TP]
TP004 TP002
TP003 TP001
TP008 TP006
TP007 TP005
GDM220001519
B9B-PH-K-S(LF)(SN)
[C9A]
PJ10
700 JTAG_TDI
700 JTAG_TMS
700 JTAG_TCK
700 JTAG_TDO
<DEBUG/JTAG>
1:GND
2:N/C
3:+3.3V
4:Seine Rx
5:Seine Tx
6:PLD TDI
7:PLD TMS
8:PLD TCK
9:PLD TDO
DEBUG SIO /
JTAG CONNECTOR
1 2 3 4 5 6 7 8
A B C D E F

32HL95
SEINE FOR FPD
SEINE IIC/UART

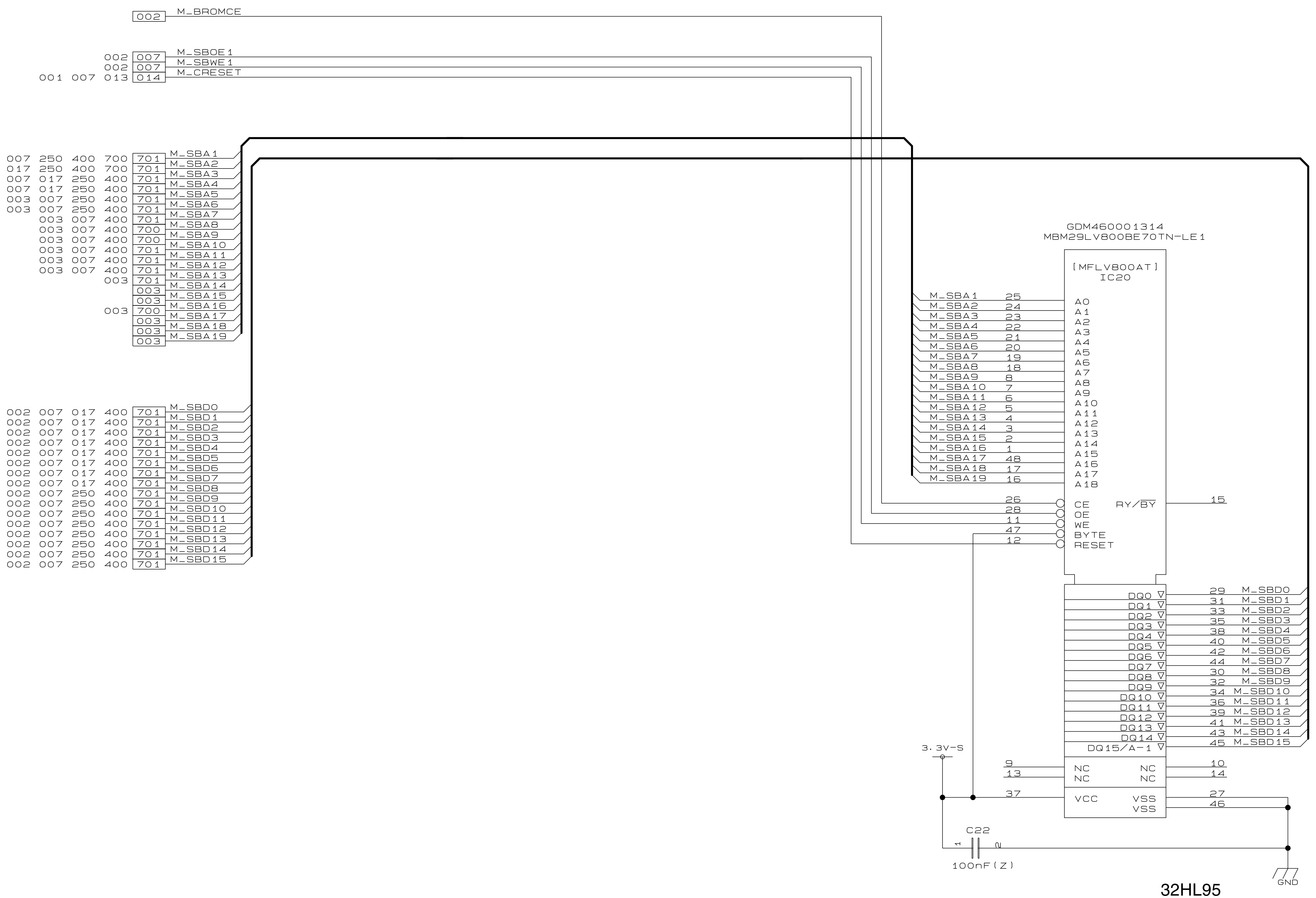
SH. NO.
4


3.3V-S
4.7K(J)
RM29
RM30
RM31
RM32
[RMX4A]
R43
4.7K(J)
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 3/13
[G81240B]
IC1
[PIO]
PIO20 AN10
PIO19 AM10
PIO18 AL10
PIO17 AK11
PIO16 AL11
PIO15 AM11
PIO14 AN11
PIO13 AN12
PIO12 AM12
PIO11 AL12
PIO10 AK12
PIO9 AK13
PIO8 AL13
PIO7 AM13
PIO6 AN13
PIO5 AN14
PIO4 AM14
PIO3 AL14
PIO2 AK14
PIO1 AK15
PIO0 AL15
M_TV_BOOT_SW 012
M_DVD-AUDIO 301
E_PSTOP 250
E_RESET 250
M_AUDIO-MUTE 305
M_TV_USB_SW 012
M_PIO13 001
M_VMUTER 226
M_LVDSPDWN 221
M_PIO10 001
M_POWERSAVE 100
M_USBPWR 011
M_PIO7 012
M_3SRML 303
M_3SRMD 303
M_3SRMC 303
M_PIO3 260
M_PIO2 001
M_PIO1 008
M_PIO0 001
012
[USB I/F]
M_USBCLK
010
C3 USBCLK48M
B2 USBOVCRNT
USBDPLS E5
USBDMNS D4
USBPRTPWR A2
M_USBDP 011
M_USBDM 011
R18
10K(F)
R58
4.7K(J)
R102
NOT MOUNT
4.7K(J)
GND
GND

PIO20:TV BOOT SW
PIO19: N.C.
PIO18:DVD AUDIO
PIO17:Encoder STOP
PIO16:Encoder RESET
PIO15:Audio Mute
PIO14:TV USB SW
PIO13:Pod Stanby UARTO SW
PIO12:Video Mute for RecOUT
PIO11:LVDS POWER DOWN
PIO10:PLD RESET
PIO9 :POWER SAVE
PIO8 :USB Power
PIO7 :Pod Stanby IICO SW
PIO6 :Serial bus latch(D/A)
PIO5 :Serial bus data(D/A)
PIO4 :Serial bus clock(D/A)
PIO3 :Gemster IR Reset
PIO2 :1394LSI Reset
PIO1 :Gemster IR Reset
PIO0 :3.3V Grobal Reset

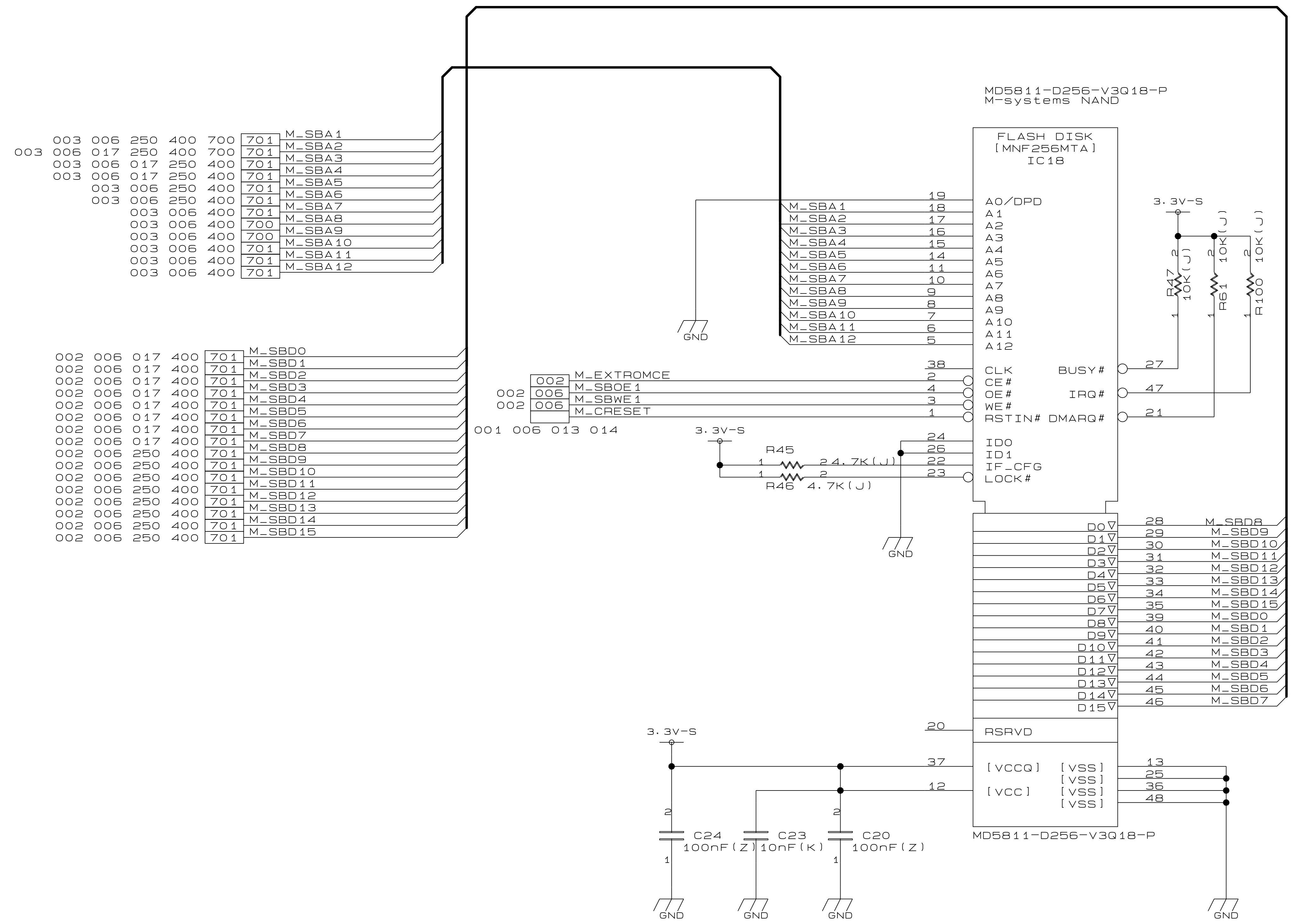
32HL95
SEINE FOR FPD
SEINE PIO

SH. NO.
5


002 M_BROMCE
002 007 M_SBOE1
002 007 M_SBWE1
001 007 013 014 M_CRESET
007 250 400 700 701 M_SBA1
017 250 400 700 701 M_SBA2
007 017 250 400 701 M_SBA3
007 017 250 400 701 M_SBA4
003 007 250 400 701 M_SBA5
003 007 250 400 701 M_SBA6
003 007 400 701 M_SBA7
003 007 400 700 M_SBA8
003 007 400 700 M_SBA9
003 007 400 701 M_SBA10
003 007 400 701 M_SBA11
003 007 400 701 M_SBA12
003 701 M_SBA13
003 M_SBA14
003 M_SBA15
003 700 M_SBA16
003 M_SBA17
003 M_SBA18
003 M_SBA19
002 007 017 400 701 M_SBD0
002 007 017 400 701 M_SBD1
002 007 017 400 701 M_SBD2
002 007 017 400 701 M_SBD3
002 007 017 400 701 M_SBD4
002 007 017 400 701 M_SBD5
002 007 017 400 701 M_SBD6
002 007 017 400 701 M_SBD7
002 007 250 400 701 M_SBD8
002 007 250 400 701 M_SBD9
002 007 250 400 701 M_SBD10
002 007 250 400 701 M_SBD11
002 007 250 400 701 M_SBD12
002 007 250 400 701 M_SBD13
002 007 250 400 701 M_SBD14
002 007 250 400 701 M_SBD15
GDM460001314
MBM29LV800BE70TN-LE1
[MFLV800AT]
IC20
M_SBA1 25 A0
M_SBA2 24 A1
M_SBA3 23 A2
M_SBA4 22 A3
M_SBA5 21 A4
M_SBA6 20 A5
M_SBA7 19 A6
M_SBA8 18 A7
M_SBA9 8 A8
M_SBA10 7 A9
M_SBA11 6 A10
M_SBA12 5 A11
M_SBA13 4 A12
M_SBA14 3 A13
M_SBA15 2 A14
M_SBA16 1 A15
M_SBA17 48 A16
M_SBA18 17 A17
M_SBA19 16 A18
26 CE
28 OE
11 WE
47 BYTE
12 RESET
RY/BY 15
DQ0 29 M_SBD0
DQ1 31 M_SBD1
DQ2 33 M_SBD2
DQ3 35 M_SBD3
DQ4 38 M_SBD4
DQ5 40 M_SBD5
DQ6 42 M_SBD6
DQ7 44 M_SBD7
DQ8 30 M_SBD8
DQ9 32 M_SBD9
DQ10 34 M_SBD10
DQ11 36 M_SBD11
DQ12 39 M_SBD12
DQ13 41 M_SBD13
DQ14 43 M_SBD14
DQ15/A-1 45 M_SBD15
9 NC
13 NC
NC 10
NC 14
3.3V-S
37 VCC
VSS 27
VSS 46
C22
1
2
100nF(Z)
GND
NC

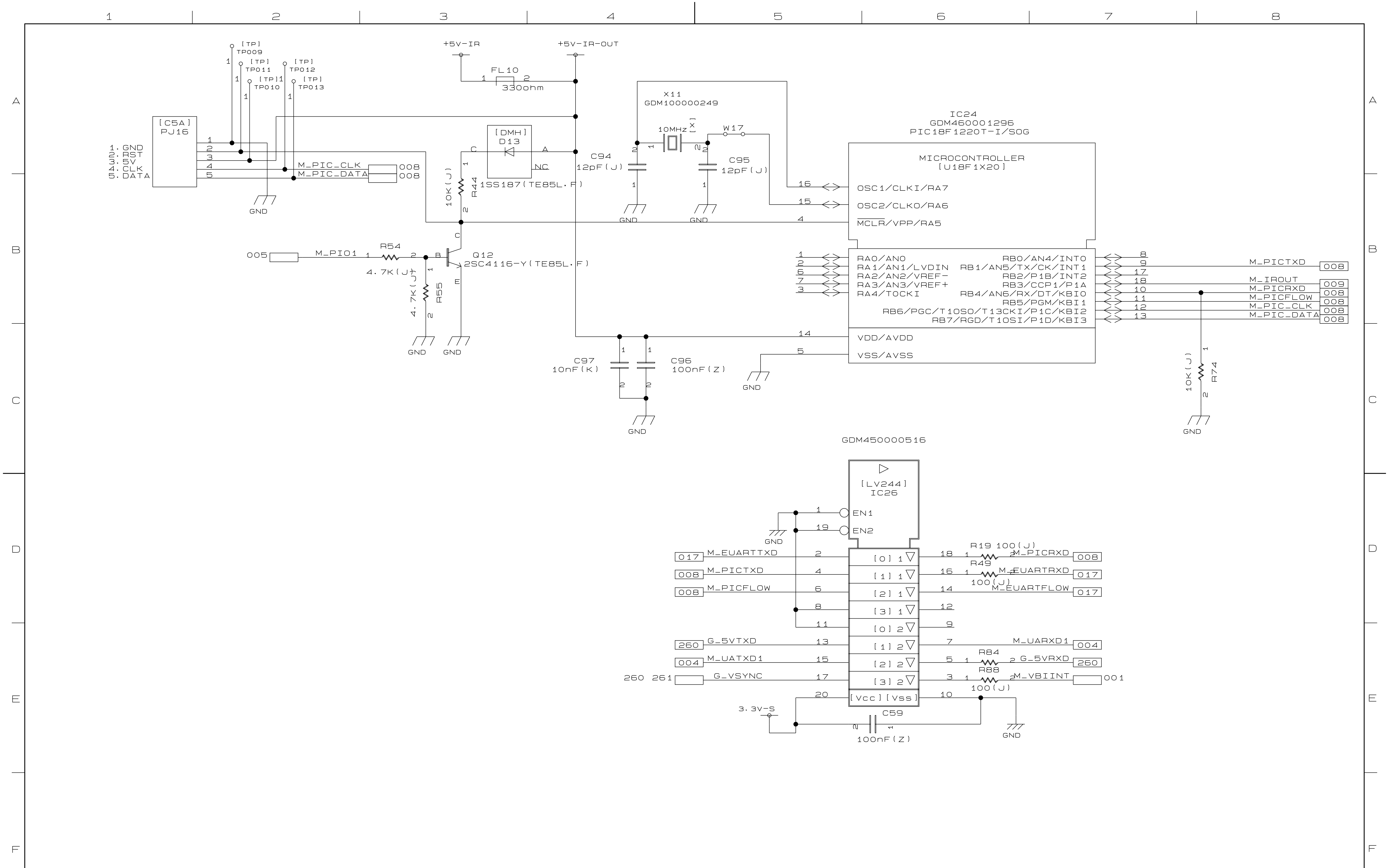
32HL95
SEINE FOR FPD
ROM/FLASH

SH. NO.
6


MD5811-D256-V3Q18-P
M-systems NAND
FLASH DISK
[MNF256MTA]
IC18
A0/DPD
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
A11
A12
CLK
CE#
OE#
WE#
RSTIN#
ID0
ID1
IF_CFG
LOCK#
BUSY#
IRQ#
DMARQ#
D0
D1
D2
D3
D4
D5
D6
D7
D8
D9
D10
D11
D12
D13
D14
D15
RSRVD
[VCCQ]
[VCC]
[VSS]
MD5811-D256-V3Q18-P
003 006 250 400 700 701 M_SBA1
003 006 017 250 400 700 701 M_SBA2
003 006 017 250 400 701 M_SBA3
003 006 017 250 400 701 M_SBA4
003 006 250 400 701 M_SBA5
003 006 250 400 701 M_SBA6
003 006 400 701 M_SBA7
003 006 400 700 M_SBA8
003 006 400 700 M_SBA9
003 006 400 701 M_SBA10
003 006 400 701 M_SBA11
003 006 400 701 M_SBA12
002 006 017 400 701 M_SBD0
002 006 017 400 701 M_SBD1
002 006 017 400 701 M_SBD2
002 006 017 400 701 M_SBD3
002 006 017 400 701 M_SBD4
002 006 017 400 701 M_SBD5
002 006 017 400 701 M_SBD6
002 006 017 400 701 M_SBD7
002 006 250 400 701 M_SBD8
002 006 250 400 701 M_SBD9
002 006 250 400 701 M_SBD10
002 006 250 400 701 M_SBD11
002 006 250 400 701 M_SBD12
002 006 250 400 701 M_SBD13
002 006 250 400 701 M_SBD14
002 006 250 400 701 M_SBD15
002 M_EXTROMCE
002 006 M_SBOE1
002 006 M_SBWE1
M_CRESET
001 006 013 014
3.3V-S
R45
24.7K(J)
R46 4.7K(J)
R47 10K(J)
R61 10K(J)
R100 10K(J)
C24 100nF(Z)
C23 10nF(K)
C20 100nF(Z)
GND

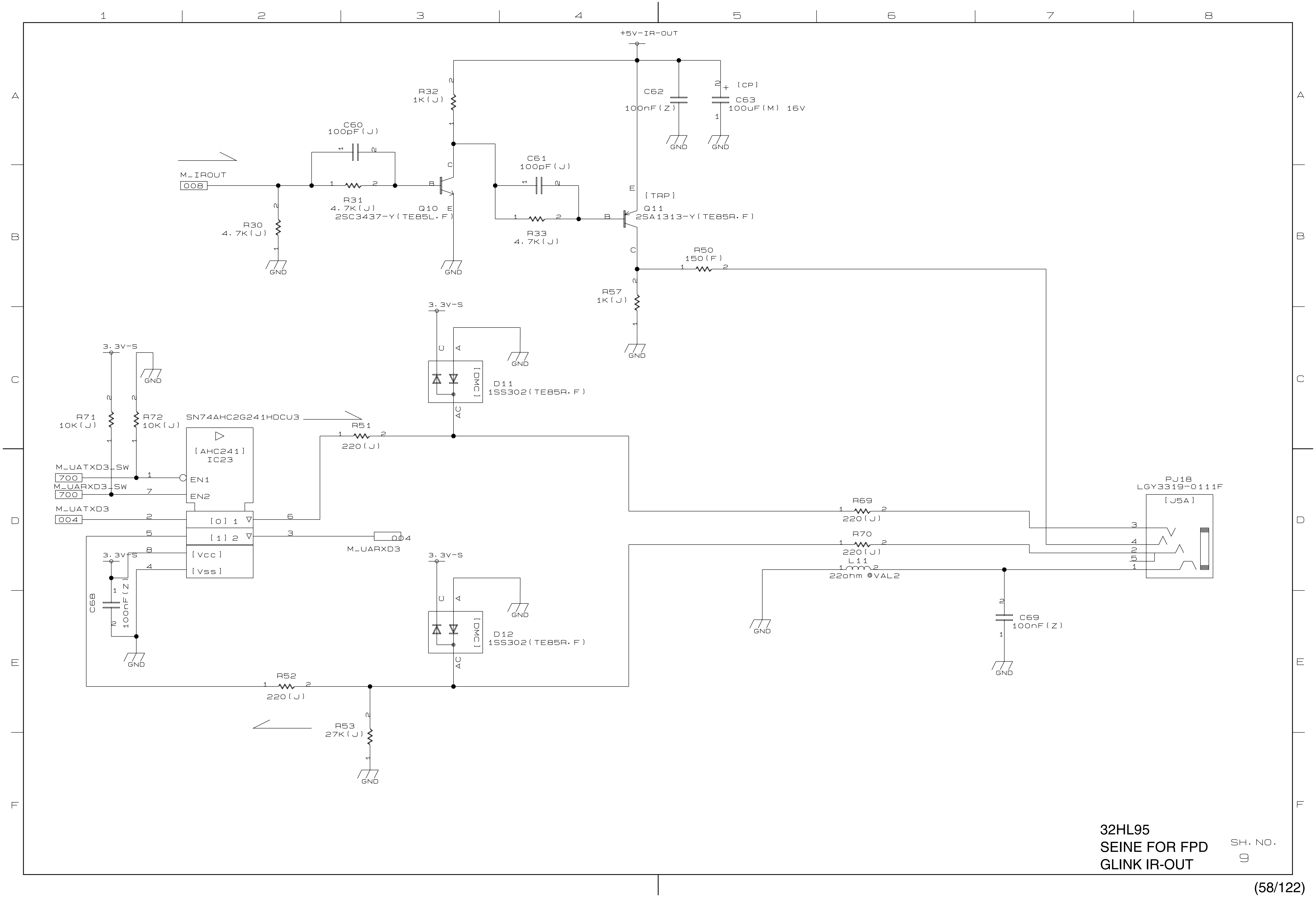
32HL95
SEINE FOR FPD
M-SYSTEM(NANDFLASHROM)

SH. NO.
7


[C5A]
PJ16
1. GND
2. RST
3. 5V
4. CLK
5. DATA
[TP] TP009
[TP] TP011
[TP] TP010
[TP] TP012
[TP] TP013
M_PIC_CLK 008
M_PIC_DATA 008
GND
+5V-IR
+5V-IR-OUT
FL10
330ohm
[DMH]
D13
1SS187(TE85L.F)
NC
R44
10K(J)
005
M_PIO1
R54
4.7K(J)
R55
4.7K(J)
Q12
2SC4116-Y(TE85L.F)
X11
GDM100000249
10MHz
[X]
W17
C94
12pF(J)
C95
12pF(J)
C97
10nF(K)
C96
100nF(Z)
IC24
GDM460001296
PIC18F1220T-I/SOG
MICROCONTROLLER
[U18F1X20]
OSC1/CLKI/RA7
OSC2/CLKO/RA6
MCLR/VPP/RA5
RA0/AN0
RA1/AN1/LVDIN
RA2/AN2/VREF-
RA3/AN3/VREF+
RA4/T0CKI
RB0/AN4/INT0
RB1/AN5/TX/CK/INT1
RB2/P1B/INT2
RB3/CCP1/P1A
RB4/AN6/RX/DT/KBI0
RB5/PGM/KBI1
RB6/PGC/T1OSO/T13CKI/P1C/KBI2
RB7/PGD/T1OSI/P1D/KBI3
VDD/AVDD
VSS/AVSS
M_PICTXD 008
M_IROUT
M_PICRXD 009
M_PICFLOW 008
M_PIC_CLK 008
M_PIC_DATA 008
R74
10K(J)
GDM450000516
[LV244]
IC26
EN1
EN2
017 M_EUARTTXD
008 M_PICTXD
008 M_PICFLOW
260 G_5VTXD
004 M_UATXD1
260 261 G_VSYNC
R19 100(J) M_PICRXD 008
R49 100(J) M_EUARTRXD 017
M_EUARTFLOW 017
M_UARXD1 004
R84 G_5VRXD 260
R88 100(J) M_VBIINT 001
[Vcc] [Vss]
3.3V-S
C59
100nF(Z)
GND

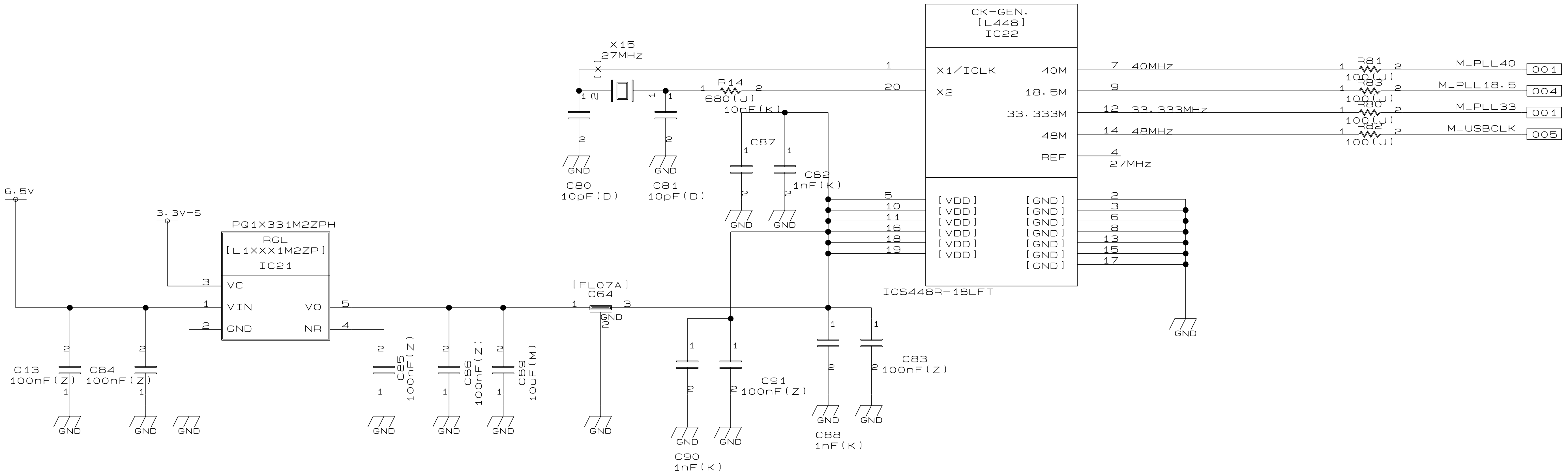
32HL95
SEINE FOR FPD
IR

SH. NO.
8


+5V-IR-OUT
R32
1K(J)
C60
100pF(J)
C61
100pF(J)
C62
100nF(Z)
C63
100uF(M) 16V
[CP]
M_IROUT
008
R31
4.7K(J)
Q10
2SC3437-Y(TE85L.F)
R30
4.7K(J)
R33
4.7K(J)
[TRP]
Q11
2SA1313-Y(TE85R.F)
R50
150(F)
R57
1K(J)
3.3V-S
D11
1SS302(TE85R.F)
[DMC]
D12
1SS302(TE85R.F)
R71
10K(J)
R72
10K(J)
SN74AHC2G241HDCU3
[AHC241]
IC23
R51
220(J)
M_UATXD3_SW
700
M_UARXD3_SW
700
EN1
EN2
M_UATXD3
004
[0] 1
[1] 2
M_UARXD3
004
3.3VFS
[Vcc]
[Vss]
C68
100nF(Z)
PJ18
LGY3319-0111F
[J5A]
R69
220(J)
R70
220(J)
L11
22ohm @VAL2
C69
100nF(Z)
R52
220(J)
R53
27K(J)
GND

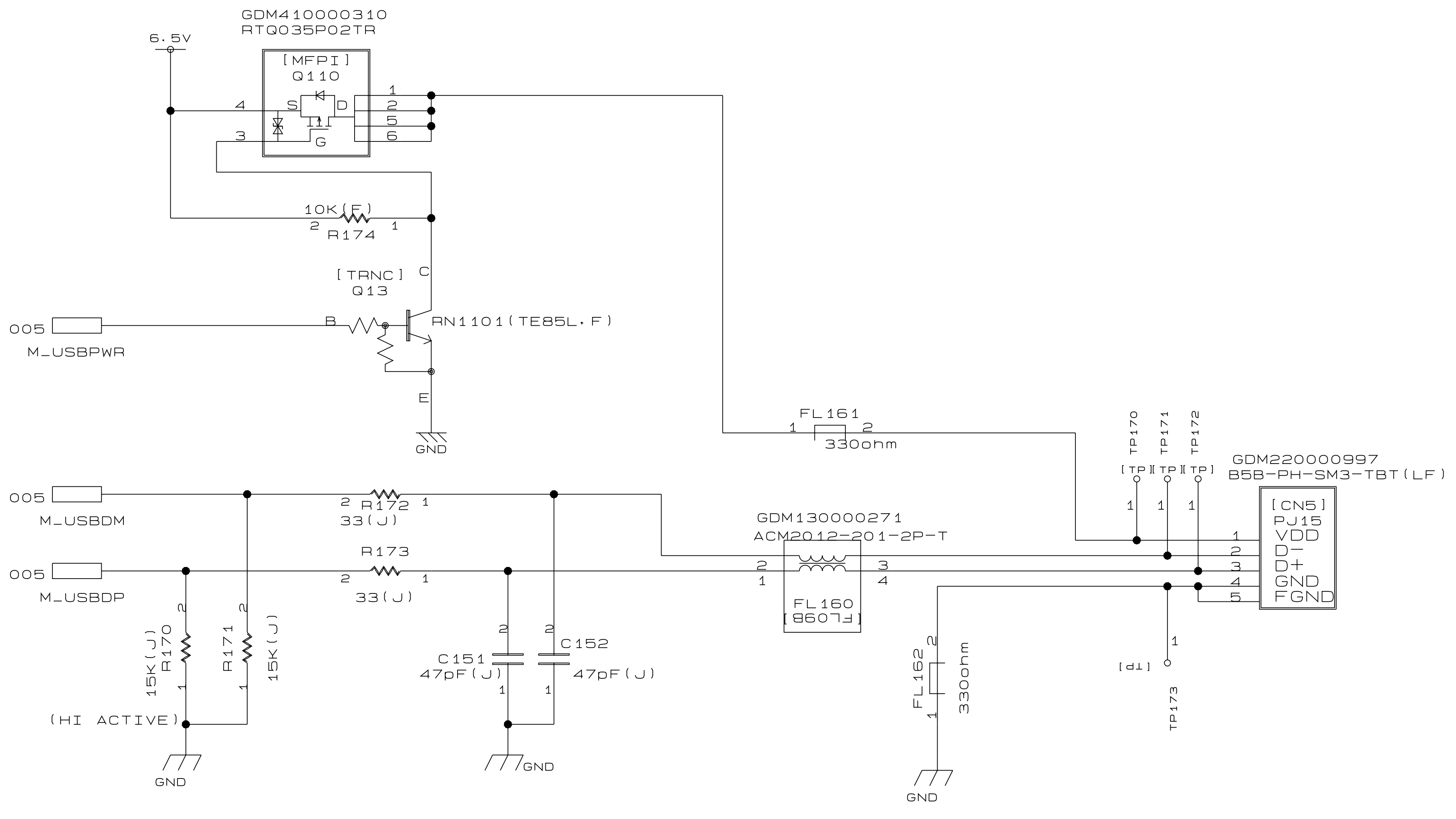
32HL95
SEINE FOR FPD
GLINK IR-OUT

SH. NO.
9


X15
27MHz
[X]
R14
680(J)
C80
10pF(D)
C81
10pF(D)
C87
10nF(K)
C82
1nF(K)
CK-GEN.
[L448]
IC22
X1/ICLK
X2
40M
18.5M
33.333M
48M
REF
7 40MHz
9
12 33.333MHz
14 48MHz
4
27MHz
R81
100(J)
R83
100(J)
R80
100(J)
R82
100(J)
M_PLL40
M_PLL18.5
M_PLL33
M_USBCLK
001
004
001
005
[VDD]
[GND]
ICS448R-18LFT
6.5V
3.3V-S
PQ1X331M2ZPH
RGL
[L1XXX1M2ZP]
IC21
VC
VIN
GND
VO
NR
[FL07A]
C64
C13
100nF(Z)
C84
100nF(Z)
C85
100nF(Z)
C86
100nF(Z)
C89
10uF(M)
C90
1nF(K)
C91
100nF(Z)
C88
1nF(K)
C83
100nF(Z)
GND

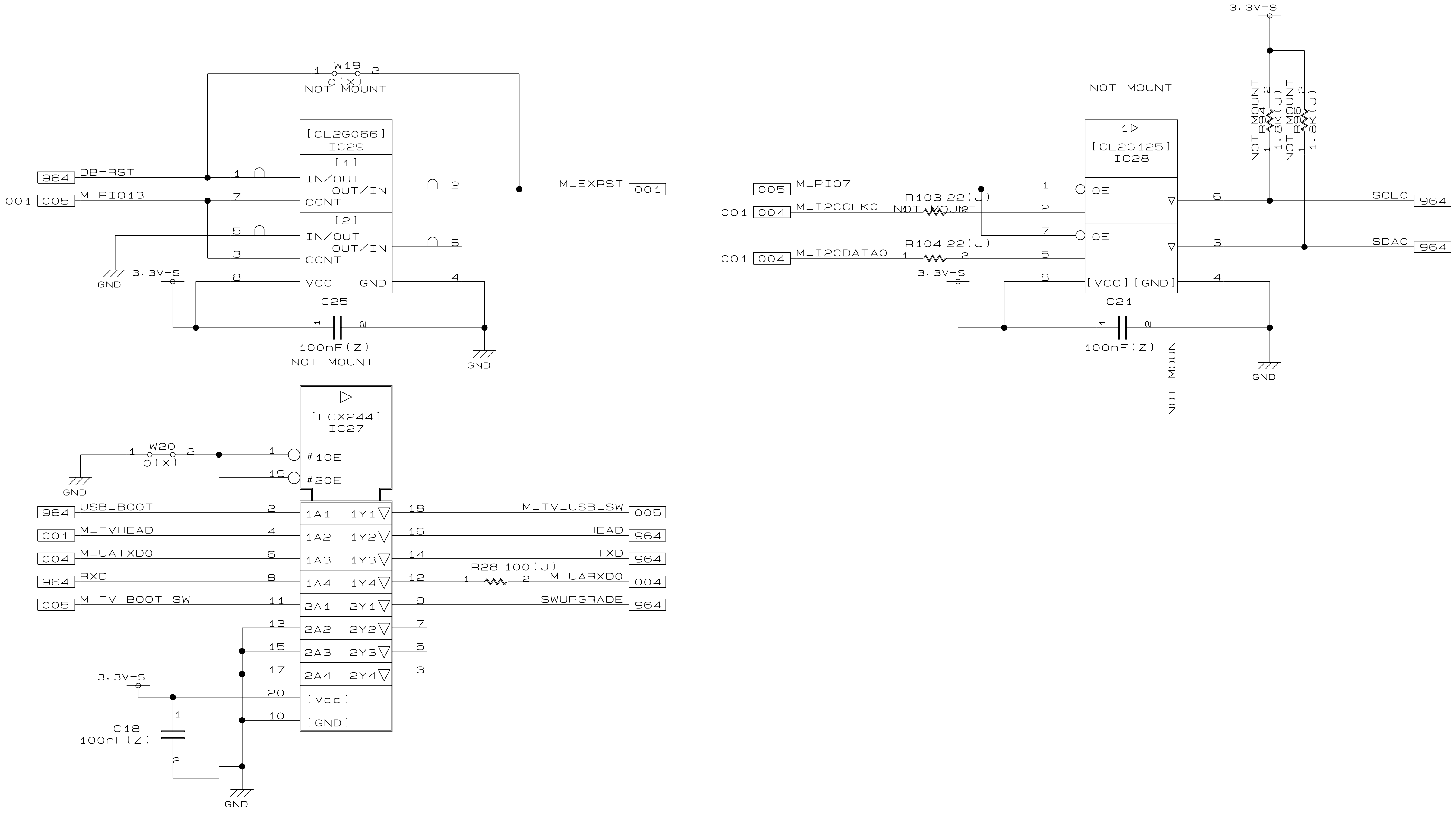
32HL95
SEINE FOR FPD
CLOCK GEN.

SH. NO.
10


GDM410000310
RTQ035P02TR
6.5V
[MFPI]
Q110
S
D
G
1
2
5
6
4
3
10K(F)
R174
2
1
[TRNC]
Q13
C
B
E
RN1101(TE85L.F)
005
M_USBPWR
GND
FL161
1
2
330ohm
TP170
TP171
TP172
[TP][TP][TP]
GDM220000997
B5B-PH-SM3-TBT(LF)
[CN5]
PJ15
VDD
D-
D+
GND
FGND
005
M_USBDM
R172
33(J)
GDM130000271
ACM2012-201-2P-T
005
M_USBDP
R173
33(J)
FL160
[FL098]
15K(J)
R170
R171
15K(J)
(HI ACTIVE)
GND
C151
47pF(J)
C152
47pF(J)
GND
FL162
330ohm
GND
[TP]
TP173

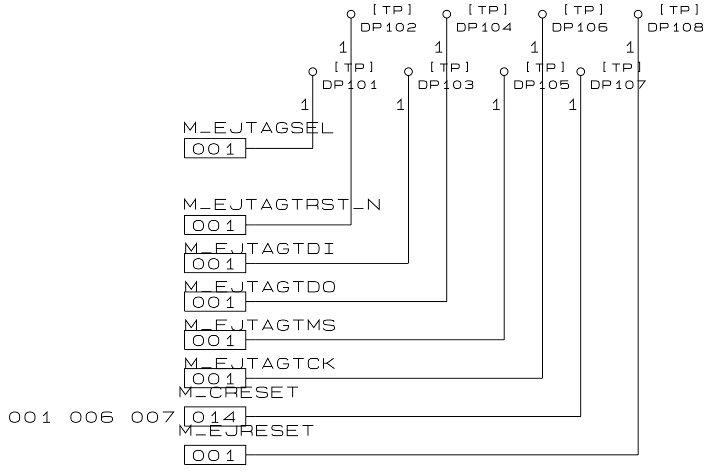
32HL95
SEINE FOR FPD
USB I/F

SH. NO.
11


W19
0(X)
NOT MOUNT
[CL2G066]
IC29
[1]
IN/OUT
OUT/IN
CONT
[2]
IN/OUT
OUT/IN
CONT
VCC
GND
964 DB-RST
001 005 M_PIO13
M_EXRST 001
3.3V-S
GND
C25
100nF(Z)
NOT MOUNT
NOT MOUNT
[CL2G125]
IC28
OE
OE
[VCC] [GND]
005 M_PIO7
001 004 M_I2CCLK0
001 004 M_I2CDATA0
R103 22(J)
NOT MOUNT
R104 22(J)
SCL0 964
SDA0 964
C21
100nF(Z)
NOT MOUNT
R94 1.8K(J)
NOT MOUNT
R95 1.8K(J)
NOT MOUNT
[LCX244]
IC27
W20
0(X)
#1OE
#2OE
964 USB_BOOT
001 M_TVHEAD
004 M_UATXD0
964 RXD
005 M_TV_BOOT_SW
1A1 1Y1
1A2 1Y2
1A3 1Y3
1A4 1Y4
2A1 2Y1
2A2 2Y2
2A3 2Y3
2A4 2Y4
[Vcc]
[GND]
M_TV_USB_SW 005
HEAD 964
TXD 964
R28 100(J)
M_UARXD0 004
SWUPGRADE 964
C18
100nF(Z)

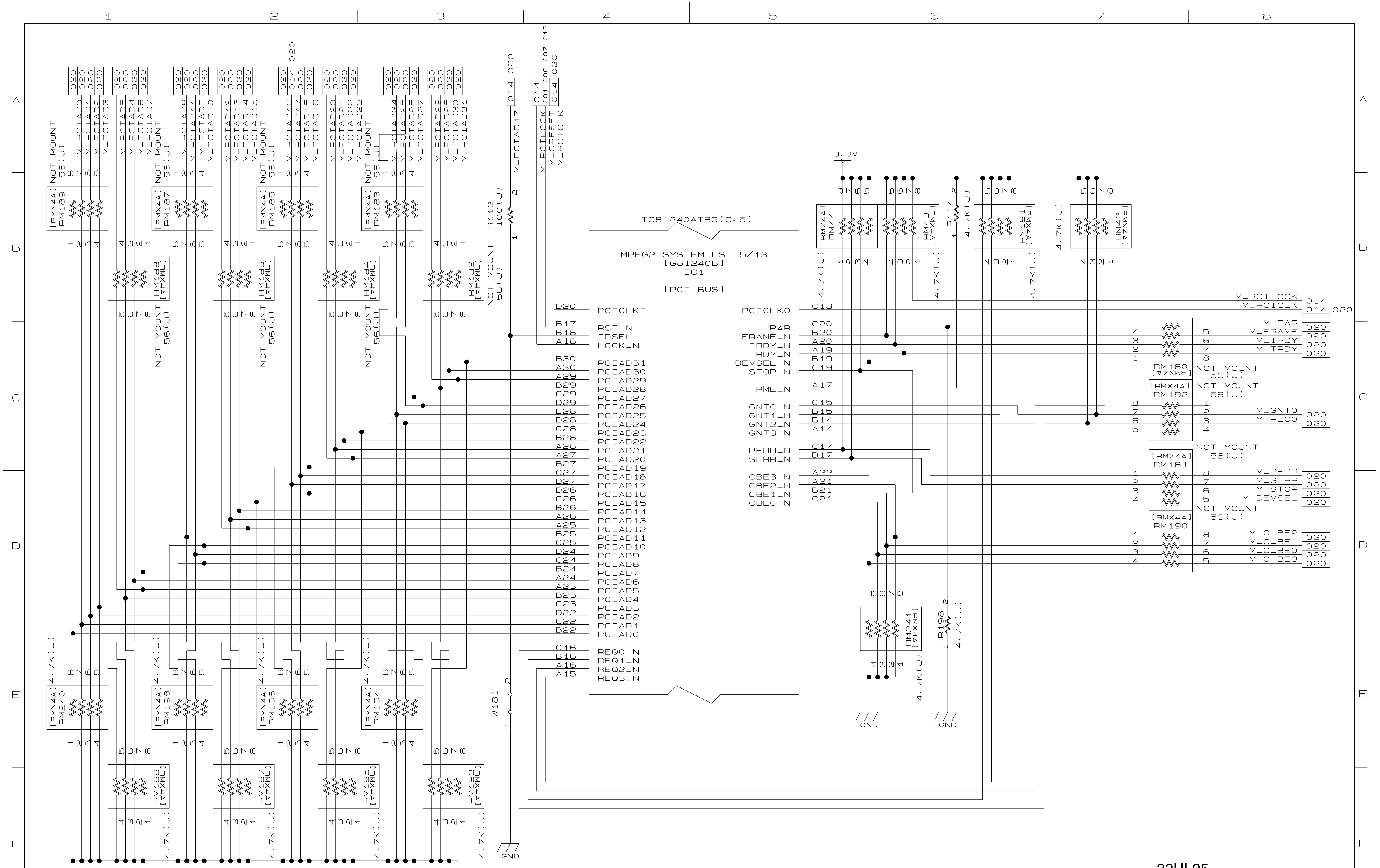
32HL95
SEINE FOR FPD
UART0 INTERFACE

SH. NO.
12


[TP]
DP102
[TP]
DP104
[TP]
DP106
[TP]
DP108
1
1
1
1
[TP]
DP101
[TP]
DP103
[TP]
DP105
[TP]
DP107
1
1
1
1
M_EJTAGSEL
001
M_EJTAGTRST_N
001
M_EJTAGTDI
001
M_EJTAGTDO
001
M_EJTAGTMS
001
M_EJTAGTCK
001
M_CRESET
001 006 007
014
M_EJRESET
001

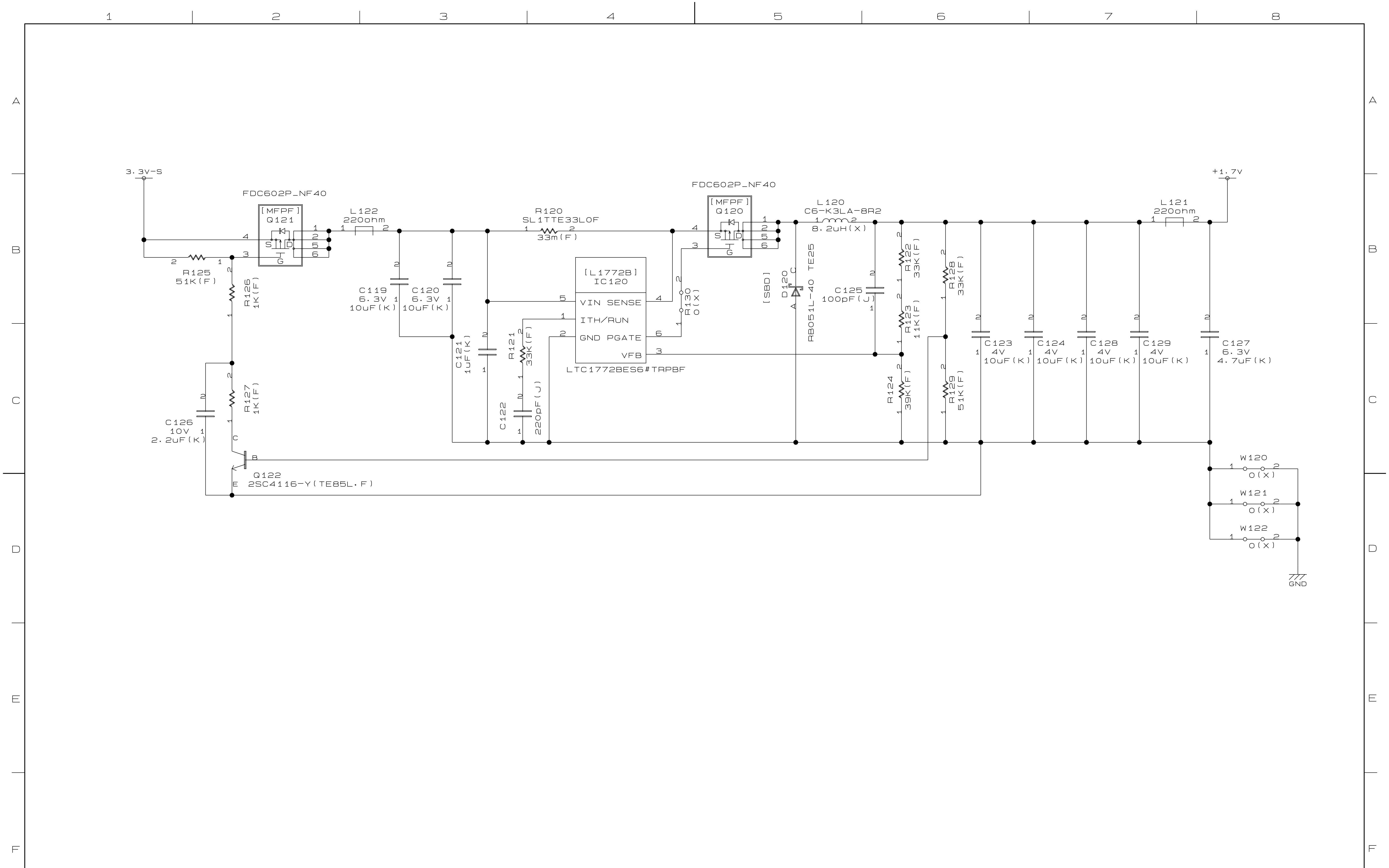
32HL95
SEINE FOR FPD
EJTAG CONNECTOR

SH. NO.
13


TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 5/13
[G81240B]
IC1
[PCI-BUS]
PCICLKI
RST_N
IDSEL
LOCK_N
PCIAD31
PCIAD30
PCIAD29
PCIAD28
PCIAD27
PCIAD26
PCIAD25
PCIAD24
PCIAD23
PCIAD22
PCIAD21
PCIAD20
PCIAD19
PCIAD18
PCIAD17
PCIAD16
PCIAD15
PCIAD14
PCIAD13
PCIAD12
PCIAD11
PCIAD10
PCIAD9
PCIAD8
PCIAD7
PCIAD6
PCIAD5
PCIAD4
PCIAD3
PCIAD2
PCIAD1
PCIAD0
REQ0_N
REQ1_N
REQ2_N
REQ3_N
PCICLKO
PAR
FRAME_N
IRDY_N
TRDY_N
DEVSEL_N
STOP_N
PME_N
GNT0_N
GNT1_N
GNT2_N
GNT3_N
PERR_N
SERR_N
CBE3_N
CBE2_N
CBE1_N
CBE0_N
M_PCILOCK
M_PCICLK
M_PAR
M_FRAME
M_IRDY
M_TRDY
M_GNT0
M_REQ0
M_PERR
M_SERR
M_STOP
M_DEVSEL
M_C_BE2
M_C_BE1
M_C_BE0
M_C_BE3
M_CRESET
M_PCIAD17
R112 100(J)
R114 4.7K(J)
R198 4.7K(J)
W181
3.3V
GND
NOT MOUNT 56(J)
4.7K(J)
[RMX4A]
RM42
RM43
RM44
RM180
RM181
RM182
RM183
RM184
RM185
RM186
RM187
RM188
RM189
RM190
RM191
RM192
RM193
RM194
RM195
RM196
RM197
RM198
RM199
RM240
RM241

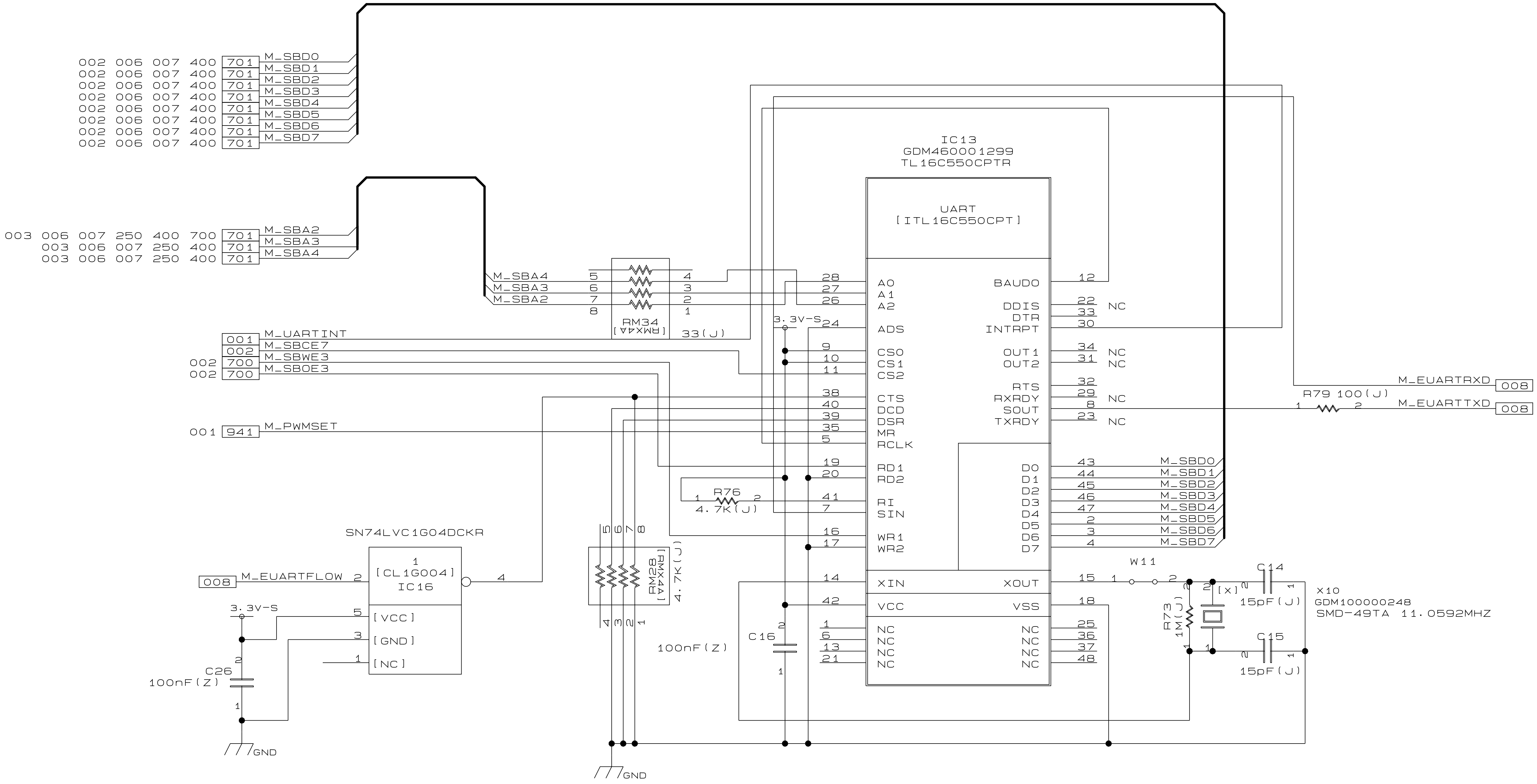
32HL95
SEINE FOR FPD
SEINE PCI BUS

SH. NO.
14


3.3V-S
FDC602P_NF40
[MFPF]
Q121
L122
220ohm
R120
SL1TTE33L0F
33m(F)
FDC602P_NF40
[MFPF]
Q120
L120
C6-K3LA-8R2
8.2uH(X)
L121
220ohm
+1.7V
R125
51K(F)
R126
1K(F)
C119
6.3V
10uF(K)
C120
6.3V
10uF(K)
C121
1uF(K)
[L1772B]
IC120
VIN SENSE
ITH/RUN
GND PGATE
VFB
LTC1772BES6#TRPBF
R121
33K(F)
C122
220pF(J)
R130
0(X)
[SBD]
D120
RB051L-40 TE25
C125
100pF(J)
R122
33K(F)
R123
11K(F)
R124
39K(F)
R128
33K(F)
R129
51K(F)
C123
4V
10uF(K)
C124
4V
10uF(K)
C128
4V
10uF(K)
C129
4V
10uF(K)
C127
6.3V
4.7uF(K)
C126
10V
2.2uF(K)
R127
1K(F)
Q122
2SC4116-Y(TE85L.F)
W120
0(X)
W121
0(X)
W122
0(X)
GND
1
2
3
4
5
6
7
8
A
B
C
D
E
F

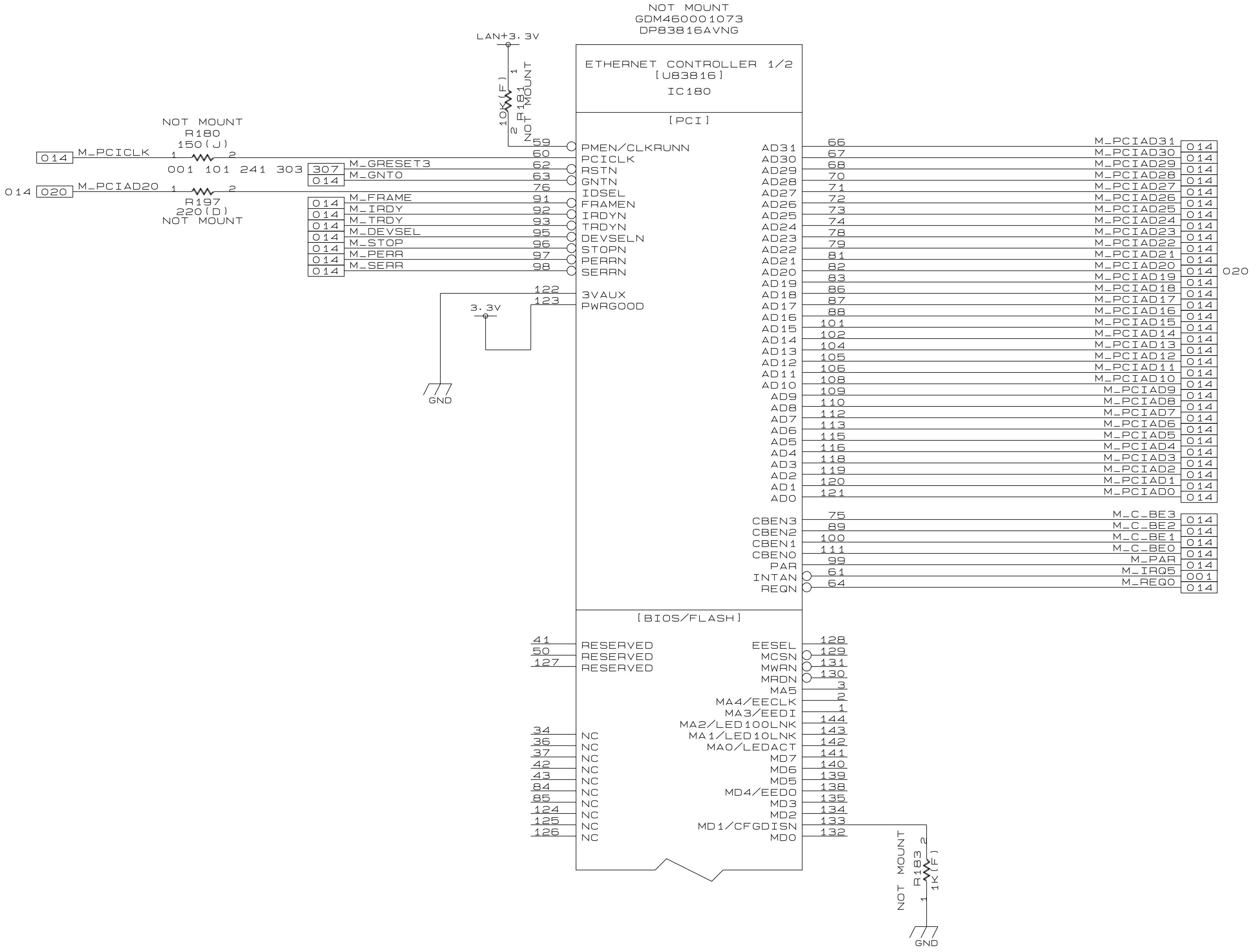
32HL95
SEINE FOR FPD
MPU POWER

SH. NO.
016


002 006 007 400 701 M_SBD0
002 006 007 400 701 M_SBD1
002 006 007 400 701 M_SBD2
002 006 007 400 701 M_SBD3
002 006 007 400 701 M_SBD4
002 006 007 400 701 M_SBD5
002 006 007 400 701 M_SBD6
002 006 007 400 701 M_SBD7
003 006 007 250 400 700 701 M_SBA2
003 006 007 250 400 701 M_SBA3
003 006 007 250 400 701 M_SBA4
001 M_UARTINT
002 M_SBCE7
002 700 M_SBWE3
002 700 M_SBOE3
001 941 M_PWMSET
008 M_EUARTFLOW
M_SBA4
M_SBA3
M_SBA2
RM34
[RMX4A]
33(J)
IC13
GDM460001299
TL16C550CPTR
UART
[ITL16C550CPT]
A0
A1
A2
ADS
CS0
CS1
CS2
CTS
DCD
DSR
MR
RCLK
RD1
RD2
RI
SIN
WR1
WR2
XIN
VCC
NC
BAUDO
DDIS
DTR
INTRPT
OUT1
OUT2
RTS
RXRDY
SOUT
TXRDY
D0
D1
D2
D3
D4
D5
D6
D7
XOUT
VSS
3.3V-S
R76
4.7K(J)
NC
R79 100(J)
M_EUARTRXD 008
M_EUARTTXD 008
W11
C14
15pF(J)
C15
15pF(J)
[X]
R73
1M(J)
X10
GDM100000248
SMD-49TA 11.0592MHZ
C16
100nF(Z)
RM28
[RMX4A]
4.7K(J)
SN74LVC1G04DCKR
[CL1G004]
IC16
[VCC]
[GND]
[NC]
3.3V-S
C26
100nF(Z)
GND
GND

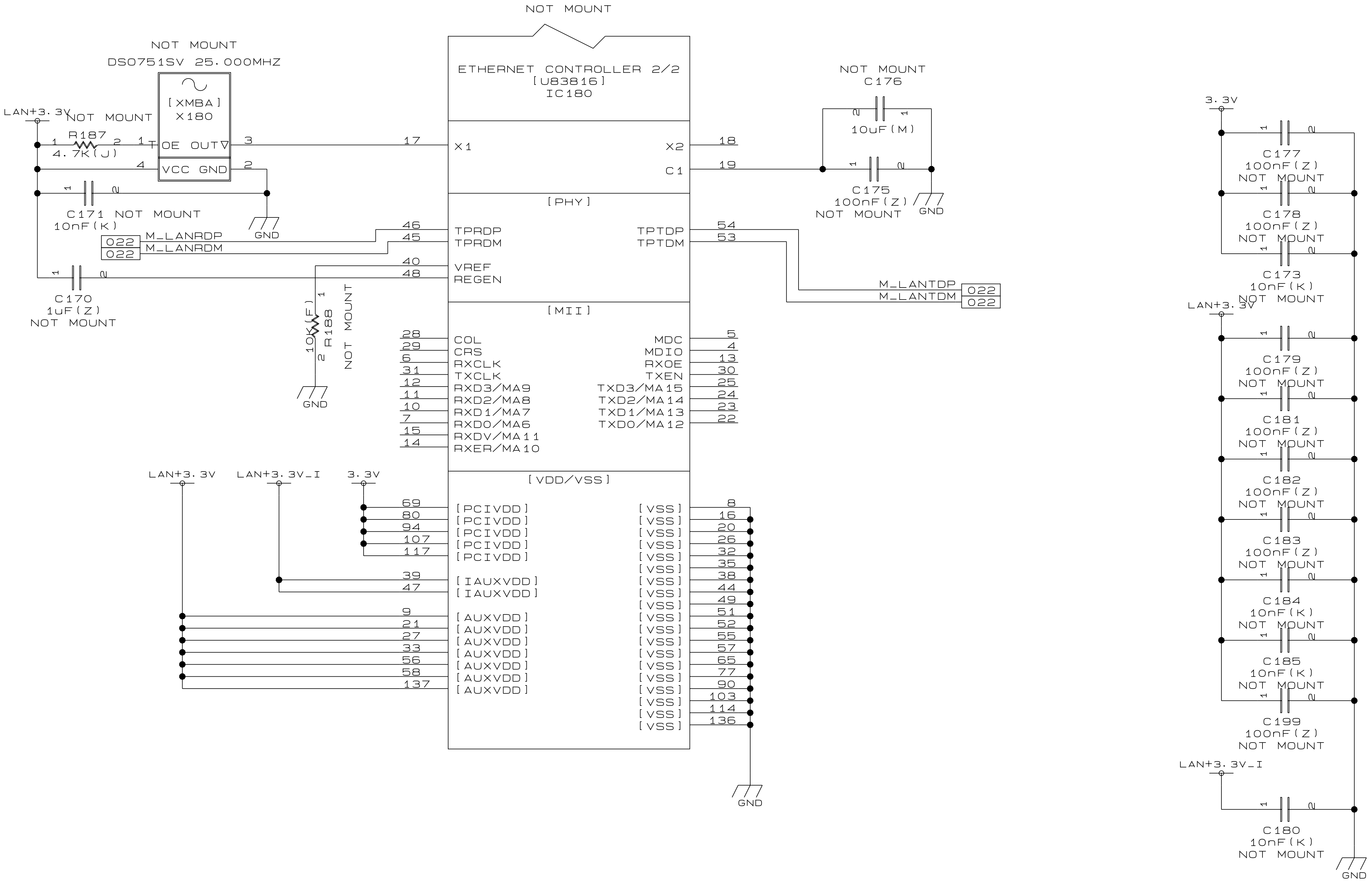
32HL95
SEINE FOR FPD
Ext UART

SH. NO.
17


NOT MOUNT
GDM460001073
DP83816AVNG
ETHERNET CONTROLLER 1/2
[U83816]
IC180
[PCI]
LAN+3.3V
R181
10K(F)
NOT MOUNT
NOT MOUNT
R180
150(J)
M_PCICLK
001 101 241 303
M_GRESET3
M_GNT0
M_PCIAD20
R197
220(D)
NOT MOUNT
M_FRAME
M_IRDY
M_TRDY
M_DEVSEL
M_STOP
M_PERR
M_SERR
PMEN/CLKRUNN
PCICLK
RSTN
GNTN
IDSEL
FRAMEN
IRDYN
TRDYN
DEVSELN
STOPN
PERRN
SERRN
3VAUX
PWRGOOD
3.3V
GND
AD31 … AD0
M_PCIAD31 … M_PCIAD0
CBEN3
CBEN2
CBEN1
CBEN0
PAR
INTAN
REQN
M_C_BE3
M_C_BE2
M_C_BE1
M_C_BE0
M_PAR
M_IRQ5
M_REQ0
014
020
001
307
[BIOS/FLASH]
RESERVED
NC
EESEL
MCSN
MWRN
MRDN
MA5
MA4/EECLK
MA3/EEDI
MA2/LED100LNK
MA1/LED10LNK
MA0/LEDACT
MD7
MD6
MD5
MD4/EEDO
MD3
MD2
MD1/CFGDISN
MD0
NOT MOUNT
R183
1K(F)
GND

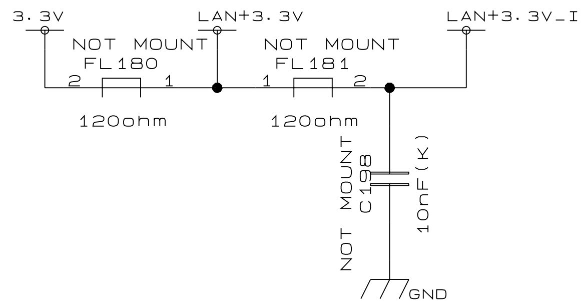
32HL95
SEINE FOR FPD
MACPHYTER 1 (1/2)

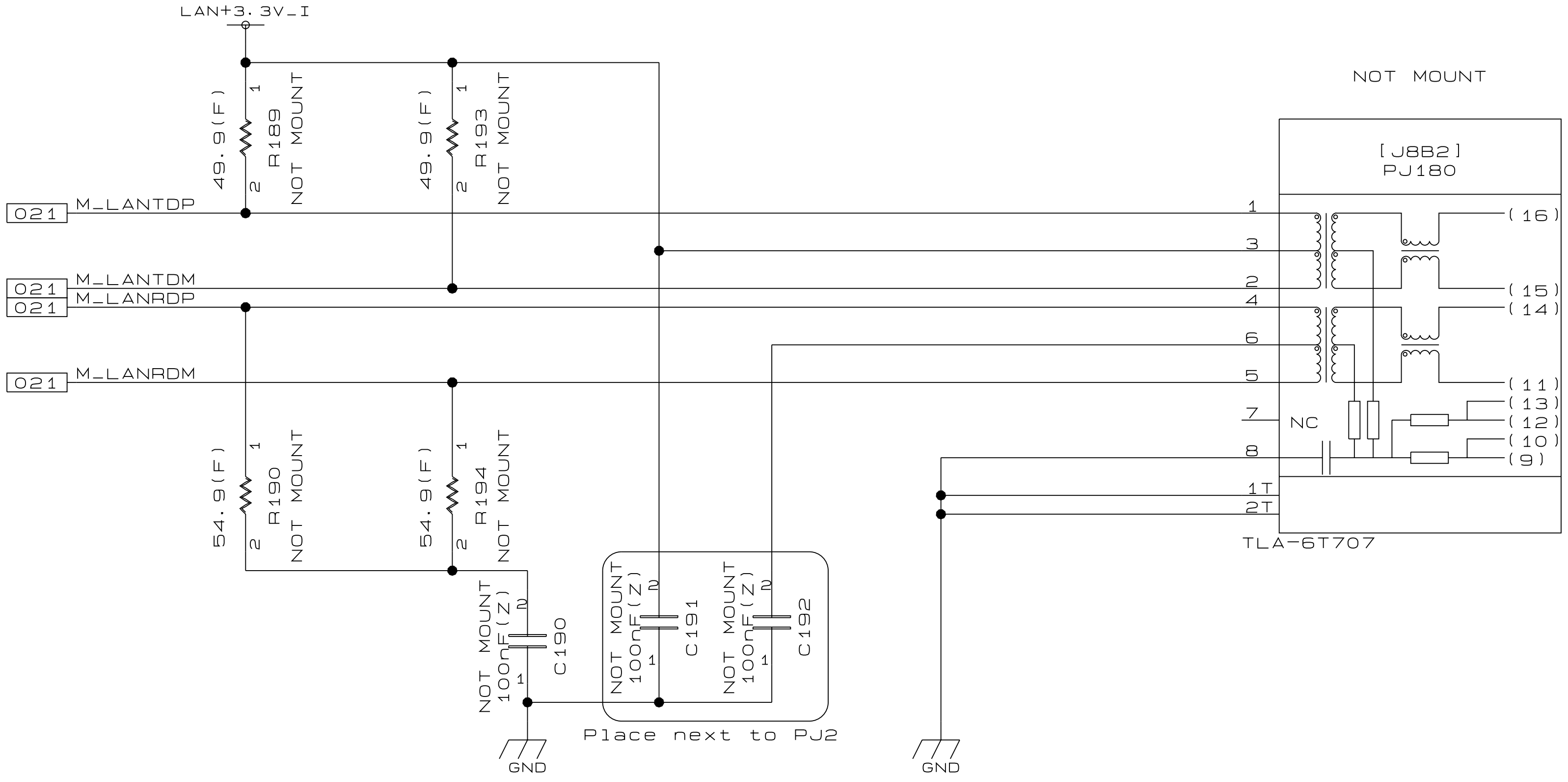
SH. NO.
20


NOT MOUNT
ETHERNET CONTROLLER 2/2
[U83816]
IC180
NOT MOUNT
DS0751SV 25.000MHZ
[XMBA]
X180
OE OUT
VCC GND
LAN+3.3V
NOT MOUNT
R187
4.7K(J)
C171 NOT MOUNT
10nF(K)
GND
M_LANRDP
M_LANRDM
022
C170
1uF(Z)
NOT MOUNT
10K(F)
R188
NOT MOUNT
X1
X2
C1
[PHY]
TPRDP
TPRDM
VREF
REGEN
TPTDP
TPTDM
[MII]
COL
CRS
RXCLK
TXCLK
RXD3/MA9
RXD2/MA8
RXD1/MA7
RXD0/MA6
RXDV/MA11
RXER/MA10
MDC
MDIO
RXOE
TXEN
TXD3/MA15
TXD2/MA14
TXD1/MA13
TXD0/MA12
[VDD/VSS]
[PCIVDD]
[IAUXVDD]
[AUXVDD]
[VSS]
LAN+3.3V_I
3.3V
NOT MOUNT
C176
10uF(M)
C175
100nF(Z)
NOT MOUNT
M_LANTDP
M_LANTDM
C177
100nF(Z)
NOT MOUNT
C178
100nF(Z)
NOT MOUNT
C173
10nF(K)
NOT MOUNT
C179
100nF(Z)
NOT MOUNT
C181
100nF(Z)
NOT MOUNT
C182
100nF(Z)
NOT MOUNT
C183
100nF(Z)
NOT MOUNT
C184
10nF(K)
NOT MOUNT
C185
10nF(K)
NOT MOUNT
C199
100nF(Z)
NOT MOUNT
C180
10nF(K)
NOT MOUNT

32HL95
SEINE FOR FPD
MACPHYTER 1 (2/2)

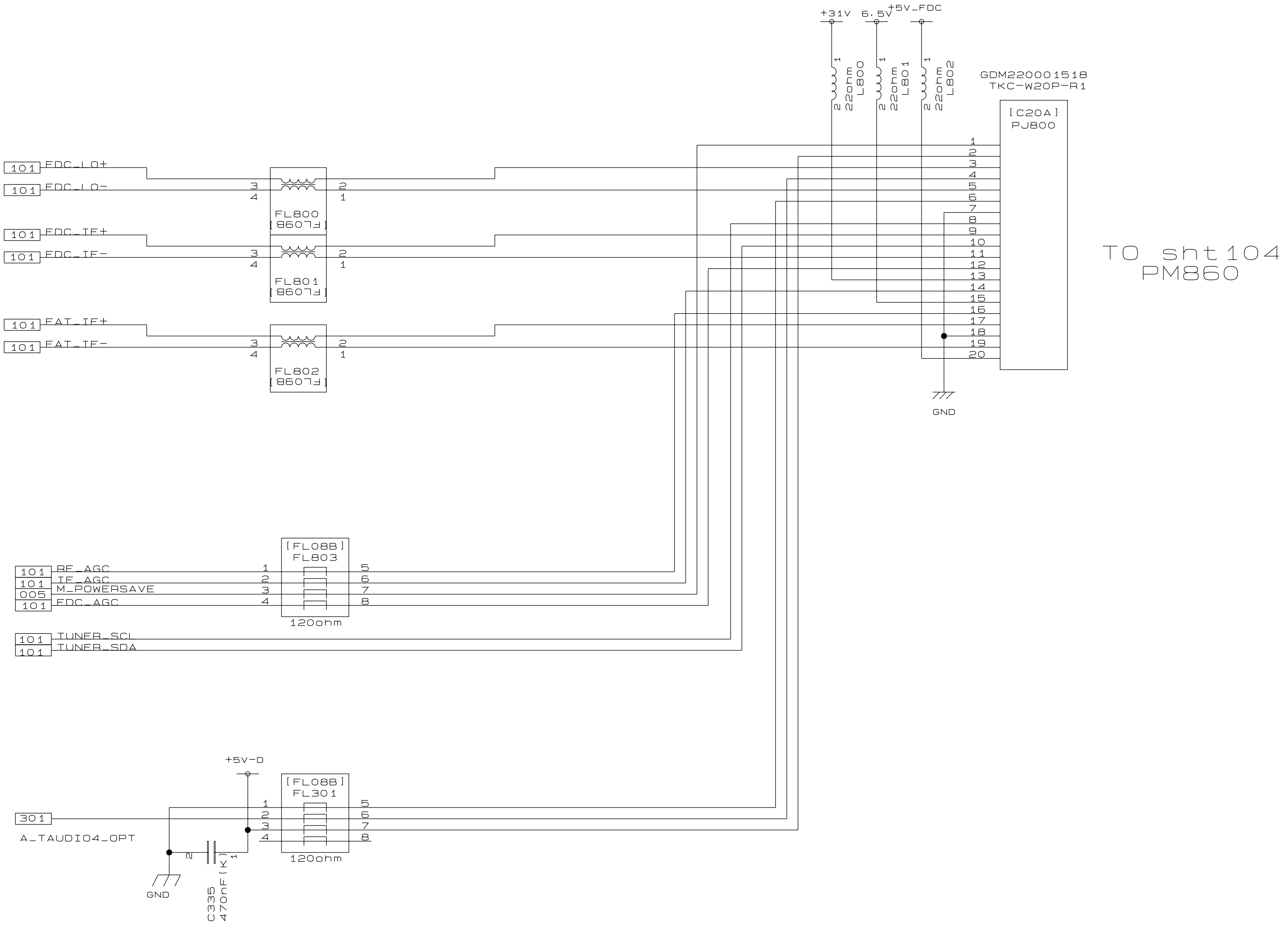
SH. NO.
21


3.3V
LAN+3.3V
LAN+3.3V_I
NOT MOUNT
FL180
2
1
120ohm
NOT MOUNT
FL181
1
2
120ohm
NOT MOUNT
C198
10nF(K)
GND


LAN+3.3V_I
49.9(F)
1
R189
2
NOT MOUNT
49.9(F)
1
R193
2
NOT MOUNT
021
M_LANTDP
021
M_LANTDM
021
M_LANRDP
021
M_LANRDM
54.9(F)
1
R190
2
NOT MOUNT
54.9(F)
1
R194
2
NOT MOUNT
NOT MOUNT
100nF(Z)
2
1
C190
NOT MOUNT
100nF(Z)
2
1
C191
NOT MOUNT
100nF(Z)
2
1
C192
Place next to PJ2
GND
GND
NOT MOUNT
[J8B2]
PJ180
1
3
2
4
6
5
7
NC
8
1T
2T
(16)
(15)
(14)
(11)
(13)
(12)
(10)
(9)
TLA-6T707

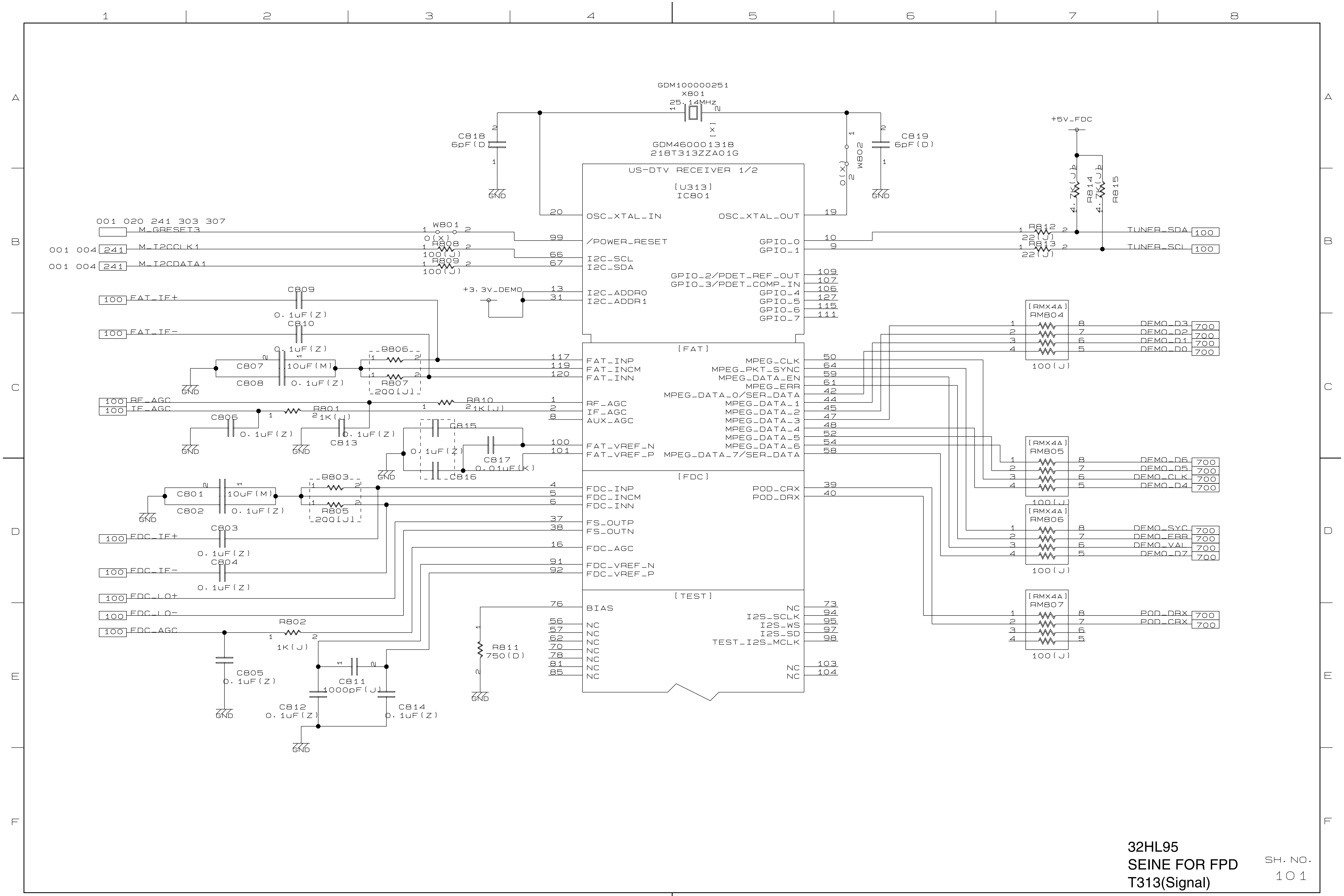
32HL95
SEINE FOR FPD
RJ45

SH. NO.
22


+31V
6.5V
+5V_FDC
L800 22ohm
L801 22ohm
L802 22ohm
GDM220001518
TKC-W20P-R1
[C20A]
PJ800
TO sht104
PM860
101 FDC_LO+
101 FDC_LO-
101 FDC_IF+
101 FDC_IF-
101 FAT_IF+
101 FAT_IF-
FL800 [FL09B]
FL801 [FL09B]
FL802 [FL09B]
GND
[FL08B] FL803
101 RF_AGC
101 IF_AGC
005 M_POWERSAVE
101 FDC_AGC
120ohm
101 TUNER_SCL
101 TUNER_SDA
+5V-D
[FL08B] FL301
301
A_TAUDIO4_OPT
C335 470nF(K)
GND
120ohm

32HL95
SEINE FOR FPD
TUENR CONNECTOR

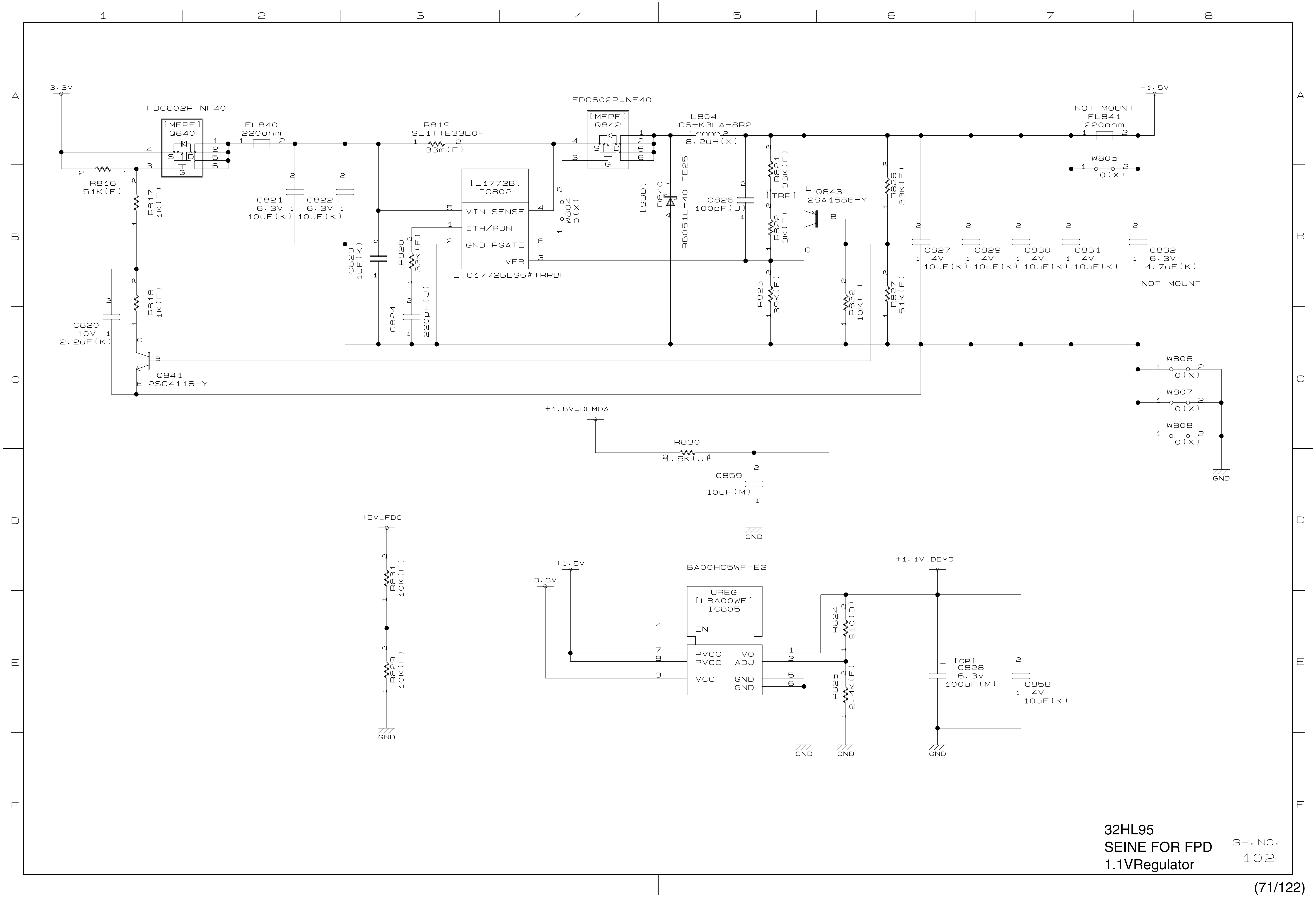
SH. NO.
100



GDM100000251
X801
25.14MHz
GDM460001318
218T313ZZA01G
C818
6pF(D)
C819
6pF(D)
W802
0(X)
+5V_FDC
R814
R815
4.7K(J)
US-DTV RECEIVER 1/2
[U313]
IC801
OSC_XTAL_IN
OSC_XTAL_OUT
/POWER_RESET
I2C_SCL
I2C_SDA
I2C_ADDR0
I2C_ADDR1
GPIO_0
GPIO_1
GPIO_2/PDET_REF_OUT
GPIO_3/PDET_COMP_IN
GPIO_4
GPIO_5
GPIO_6
GPIO_7
001 020 241 303 307
M_GRESET3
001 004
241
M_I2CCLK1
M_I2CDATA1
W801
0(X)
R808
100(J)
R809
100(J)
R812
22(J)
R813
22(J)
TUNER_SDA
TUNER_SCL
100
+3.3V_DEMO
FAT_IF+
FAT_IF-
C809
0.1uF(Z)
C810
0.1uF(Z)
C807
10uF(M)
C808
0.1uF(Z)
R806
R807
200(J)
RF_AGC
IF_AGC
R810
1K(J)
R801
1K(J)
C806
0.1uF(Z)
C813
0.1uF(Z)
C815
0.1uF(Z)
C816
C817
0.01uF(K)
[FAT]
FAT_INP
FAT_INCM
FAT_INN
RF_AGC
IF_AGC
AUX_AGC
FAT_VREF_N
FAT_VREF_P
MPEG_CLK
MPEG_PKT_SYNC
MPEG_DATA_EN
MPEG_ERR
MPEG_DATA_0/SER_DATA
MPEG_DATA_1
MPEG_DATA_2
MPEG_DATA_3
MPEG_DATA_4
MPEG_DATA_5
MPEG_DATA_6
MPEG_DATA_7/SER_DATA
[RMX4A]
RM804
RM805
RM806
RM807
100(J)
DEMO_D3
DEMO_D2
DEMO_D1
DEMO_D0
DEMO_D6
DEMO_D5
DEMO_CLK
DEMO_D4
DEMO_SYC
DEMO_ERR
DEMO_VAL
DEMO_D7
POD_DRX
POD_CRX
700
[FDC]
FDC_INP
FDC_INCM
FDC_INN
FS_OUTP
FS_OUTN
FDC_AGC
FDC_VREF_N
FDC_VREF_P
POD_CRX
POD_DRX
C801
10uF(M)
C802
0.1uF(Z)
R803
R805
200(J)
FDC_IF+
FDC_IF-
FDC_LO+
FDC_LO-
FDC_AGC
C803
0.1uF(Z)
C804
0.1uF(Z)
R802
1K(J)
C805
0.1uF(Z)
C811
1000pF(J)
C812
0.1uF(Z)
C814
0.1uF(Z)
[TEST]
BIAS
NC
I2S_SCLK
I2S_WS
I2S_SD
TEST_I2S_MCLK
R811
750(D)
GND
1
2
3
4
5
6
7
8
A
B
C
D
E
F

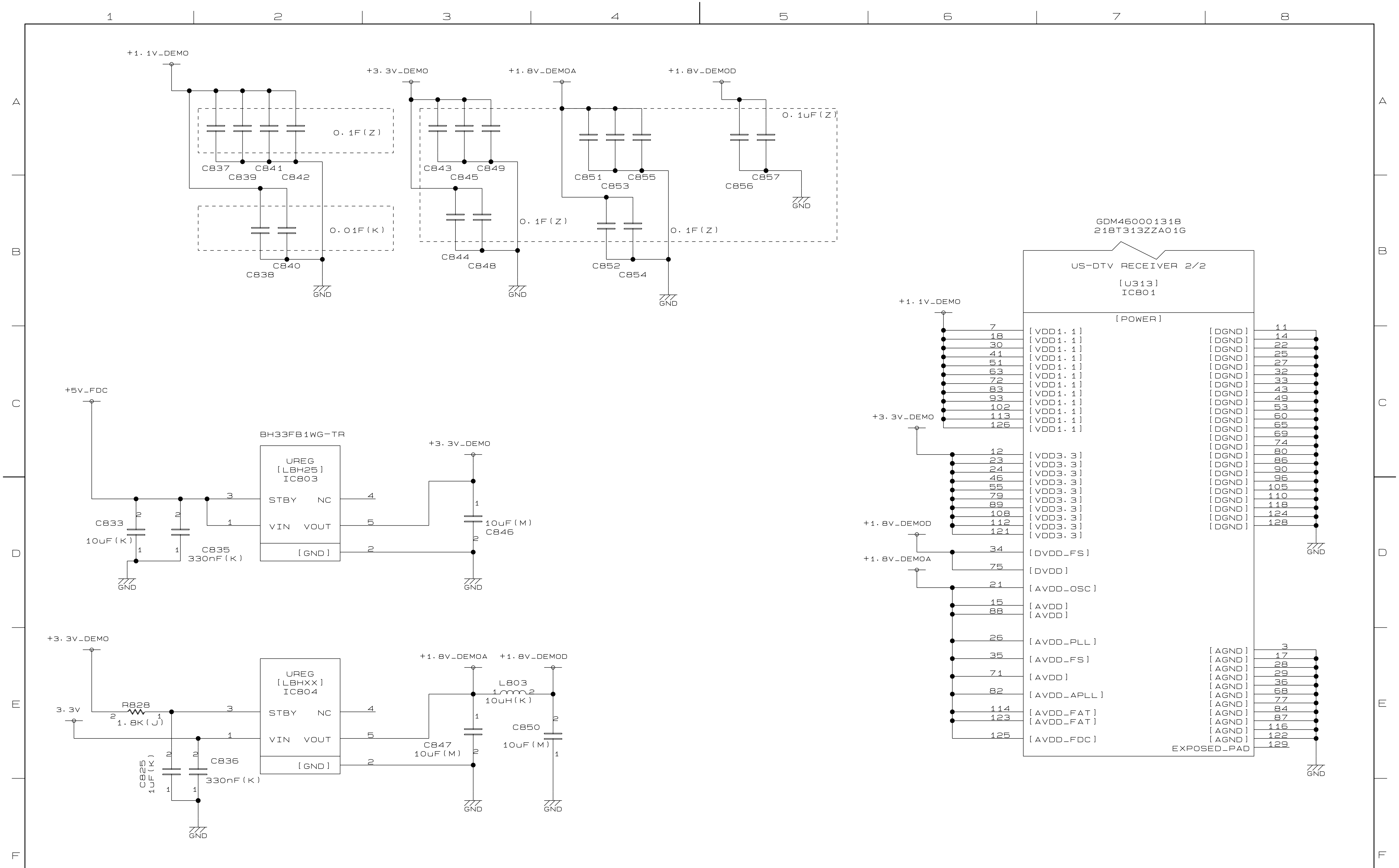
32HL95
SEINE FOR FPD
T313(Signal)

SH. NO.
101


3.3V
FDC602P_NF40
[MFPF]
Q840
FL840
220ohm
R819
SL1TTE33L0F
33m(F)
FDC602P_NF40
[MFPF]
Q842
L804
C6-K3LA-8R2
8.2uH(X)
NOT MOUNT
FL841
220ohm
+1.5V
W805
0(X)
R816
51K(F)
R817
1K(F)
C821
6.3V
10uF(K)
C822
6.3V
10uF(K)
[L1772B]
IC802
VIN SENSE
ITH/RUN
GND PGATE
VFB
LTC1772BES6#TRPBF
W804
0(X)
[SBD]
D840
RB051L-40 TE25
C826
100pF(J)
R821
33K(F)
[TRP]
R822
3K(F)
Q843
2SA1586-Y
R826
33K(F)
C827
4V
10uF(K)
C829
4V
10uF(K)
C830
4V
10uF(K)
C831
4V
10uF(K)
C832
6.3V
4.7uF(K)
NOT MOUNT
C823
1uF(K)
R820
33K(F)
C824
220pF(J)
R823
39K(F)
R832
10K(F)
R827
51K(F)
C820
10V
2.2uF(K)
R818
1K(F)
Q841
2SC4116-Y
W806
0(X)
W807
0(X)
W808
0(X)
GND
+1.8V_DEMOA
R830
1.5K(J)
C859
10uF(M)
GND
+5V_FDC
R831
10K(F)
R829
10K(F)
GND
+1.5V
3.3V
BA00HC5WF-E2
UREG
[LBA00WF]
IC805
EN
PVCC
PVCC
VCC
VO
ADJ
GND
GND
R824
910(D)
R825
2.4K(F)
GND
GND
+1.1V_DEMO
[CP]
C828
6.3V
100uF(M)
C858
4V
10uF(K)
GND
1
2
3
4
5
6
7
8
A
B
C
D
E
F

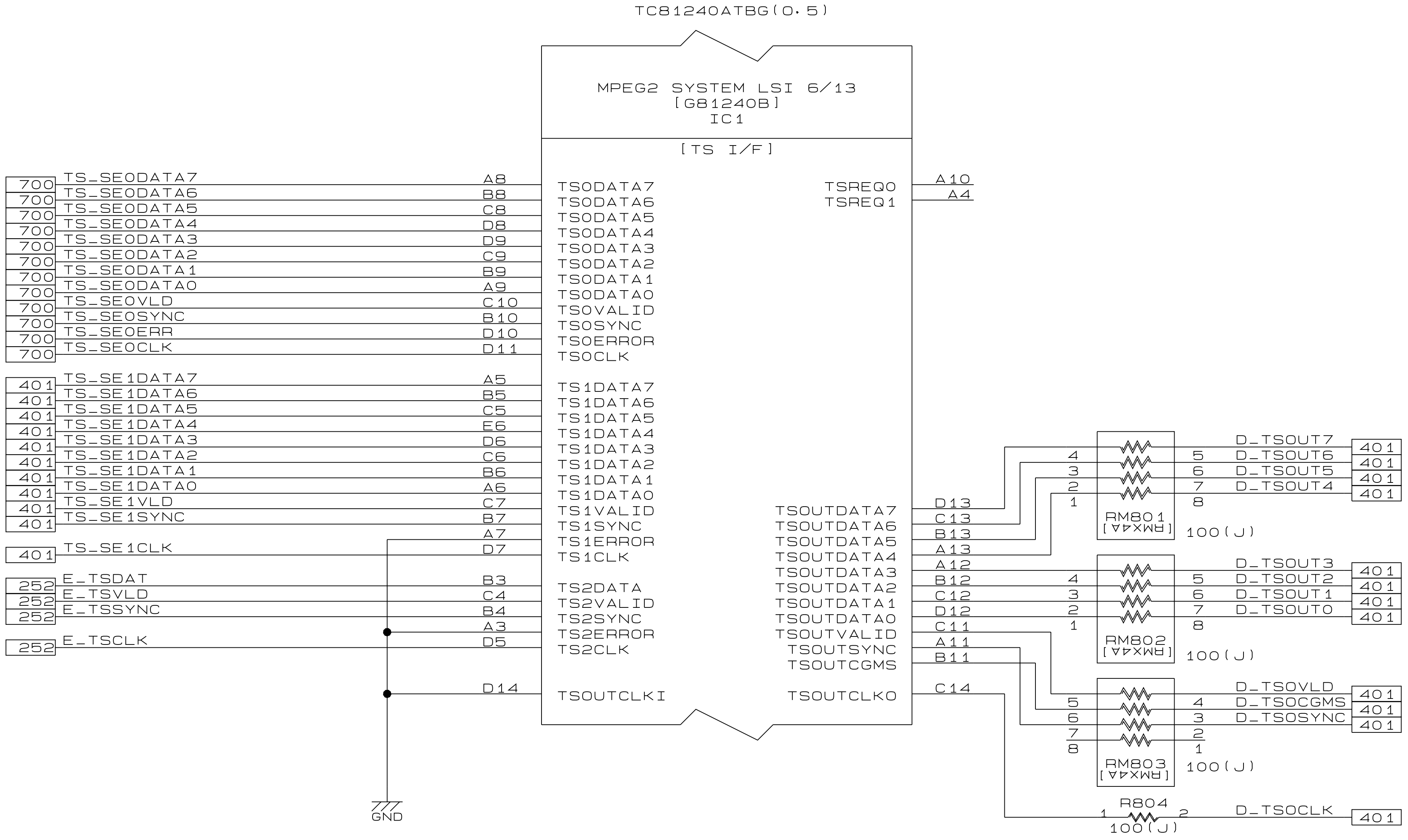
32HL95
SEINE FOR FPD
1.1VRegulator

SH. NO.
102


+1.1V_DEMO
C837 C839 C841 C842
0.1F(Z)
C838 C840
0.01F(K)
GND
+3.3V_DEMO
C843 C845 C849
C844 C848
0.1F(Z)
+1.8V_DEMOA
C851 C853 C855
C852 C854
0.1F(Z)
+1.8V_DEMOD
C856 C857
0.1uF(Z)
GDM460001318
218T313ZZA01G
US-DTV RECEIVER 2/2
[U313]
IC801
[POWER]
+1.1V_DEMO
7 18 30 41 51 63 72 83 93 102 113 126 [VDD1.1]
+3.3V_DEMO
12 23 24 46 55 79 89 108 112 121 [VDD3.3]
+1.8V_DEMOD
34 [DVDD_FS]
75 [DVDD]
+1.8V_DEMOA
21 [AVDD_OSC]
15 [AVDD]
88 [AVDD]
26 [AVDD_PLL]
35 [AVDD_FS]
71 [AVDD]
82 [AVDD_APLL]
114 [AVDD_FAT]
123 [AVDD_FAT]
125 [AVDD_FDC]
[DGND] 11 14 22 25 27 32 33 43 49 53 60 65 69 74 80 86 90 96 105 110 118 124 128
[AGND] 3 17 28 29 36 68 77 84 87 116 122
EXPOSED_PAD 129
+5V_FDC
BH33FB1WG-TR
UREG
[LBH25]
IC803
STBY NC
VIN VOUT
[GND]
3 1 4 5 2
C833 10uF(K)
C835 330nF(K)
+3.3V_DEMO
C846 10uF(M)
+3.3V_DEMO
3.3V
R828 1.8K(J)
UREG
[LBHXX]
IC804
STBY NC
VIN VOUT
[GND]
C825 1uF(K)
C836 330nF(K)
+1.8V_DEMOA
+1.8V_DEMOD
L803 10uH(K)
C847 10uF(M)
C850 10uF(M)
1 2 3 4 5 6 7 8
A B C D E F

32HL95
SEINE FOR FPD
T313(Power)

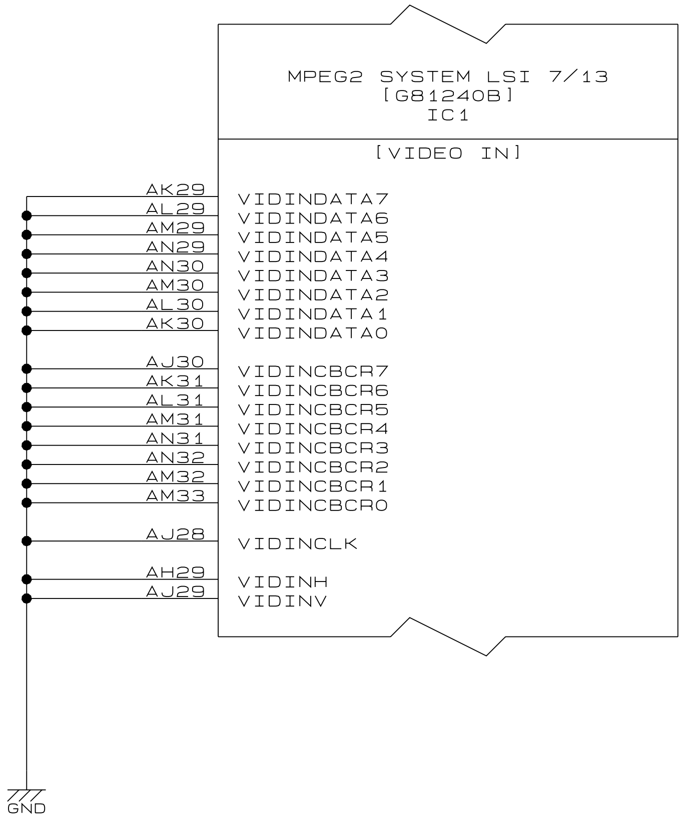
SH. NO.
103


TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 6/13
[G81240B]
IC1
[TS I/F]
700 TS_SE0DATA7 A8 TS0DATA7
700 TS_SE0DATA6 B8 TS0DATA6
700 TS_SE0DATA5 C8 TS0DATA5
700 TS_SE0DATA4 D8 TS0DATA4
700 TS_SE0DATA3 D9 TS0DATA3
700 TS_SE0DATA2 C9 TS0DATA2
700 TS_SE0DATA1 B9 TS0DATA1
700 TS_SE0DATA0 A9 TS0DATA0
700 TS_SE0VLD C10 TS0VALID
700 TS_SE0SYNC B10 TS0SYNC
700 TS_SE0ERR D10 TS0ERROR
700 TS_SE0CLK D11 TS0CLK
401 TS_SE1DATA7 A5 TS1DATA7
401 TS_SE1DATA6 B5 TS1DATA6
401 TS_SE1DATA5 C5 TS1DATA5
401 TS_SE1DATA4 E6 TS1DATA4
401 TS_SE1DATA3 D6 TS1DATA3
401 TS_SE1DATA2 C6 TS1DATA2
401 TS_SE1DATA1 B6 TS1DATA1
401 TS_SE1DATA0 A6 TS1DATA0
401 TS_SE1VLD C7 TS1VALID
401 TS_SE1SYNC B7 TS1SYNC
A7 TS1ERROR
401 TS_SE1CLK D7 TS1CLK
252 E_TSDAT B3 TS2DATA
252 E_TSVLD C4 TS2VALID
252 E_TSSYNC B4 TS2SYNC
A3 TS2ERROR
252 E_TSCLK D5 TS2CLK
D14 TSOUTCLKI
GND
TSREQ0 A10
TSREQ1 A4
TSOUTDATA7 D13
TSOUTDATA6 C13
TSOUTDATA5 B13
TSOUTDATA4 A13
TSOUTDATA3 A12
TSOUTDATA2 B12
TSOUTDATA1 C12
TSOUTDATA0 D12
TSOUTVALID C11
TSOUTSYNC A11
TSOUTCGMS B11
TSOUTCLKO C14
RM801 [RMX4A] 100(J)
4 5 D_TSOUT7 401
3 6 D_TSOUT6 401
2 7 D_TSOUT5 401
1 8 D_TSOUT4 401
RM802 [RMX4A] 100(J)
4 5 D_TSOUT3 401
3 6 D_TSOUT2 401
2 7 D_TSOUT1 401
1 8 D_TSOUT0 401
RM803 [RMX4A] 100(J)
5 4 D_TSOVLD 401
6 3 D_TSOCGMS 401
7 2 D_TSOSYNC 401
8 1
R804 1 2 100(J) D_TSOCLK 401

32HL95
SEINE FOR FPD
Seine TS I/F

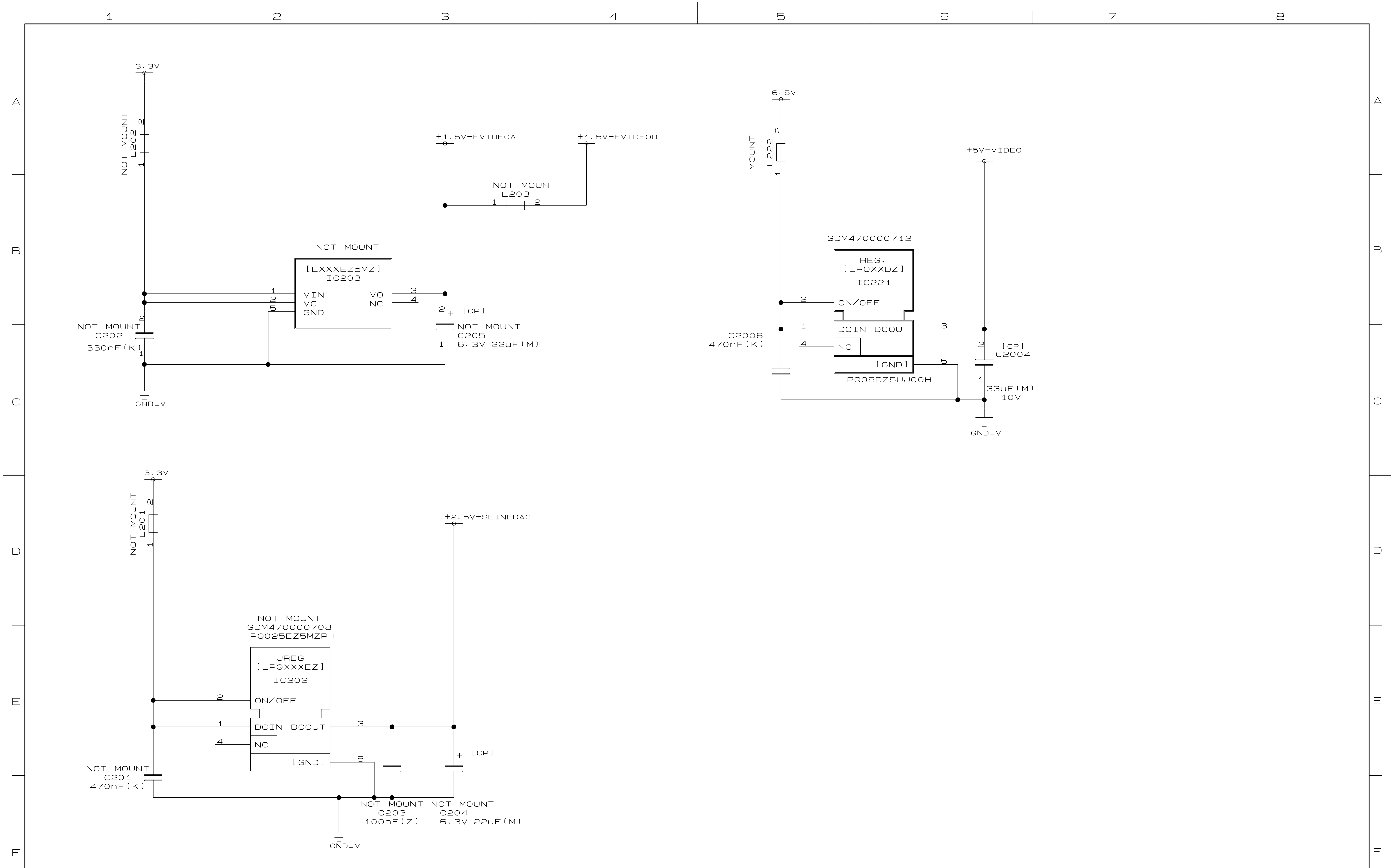
SH. NO.
150

(73/122)


MPEG2 SYSTEM LSI 7/13
[G81240B]
IC1
[VIDEO IN]
AK29 VIDINDATA7
AL29 VIDINDATA6
AM29 VIDINDATA5
AN29 VIDINDATA4
AN30 VIDINDATA3
AM30 VIDINDATA2
AL30 VIDINDATA1
AK30 VIDINDATA0
AJ30 VIDINCBCR7
AK31 VIDINCBCR6
AL31 VIDINCBCR5
AM31 VIDINCBCR4
AN31 VIDINCBCR3
AN32 VIDINCBCR2
AM32 VIDINCBCR1
AM33 VIDINCBCR0
AJ28 VIDINCLK
AH29 VIDINH
AJ29 VIDINV
GND

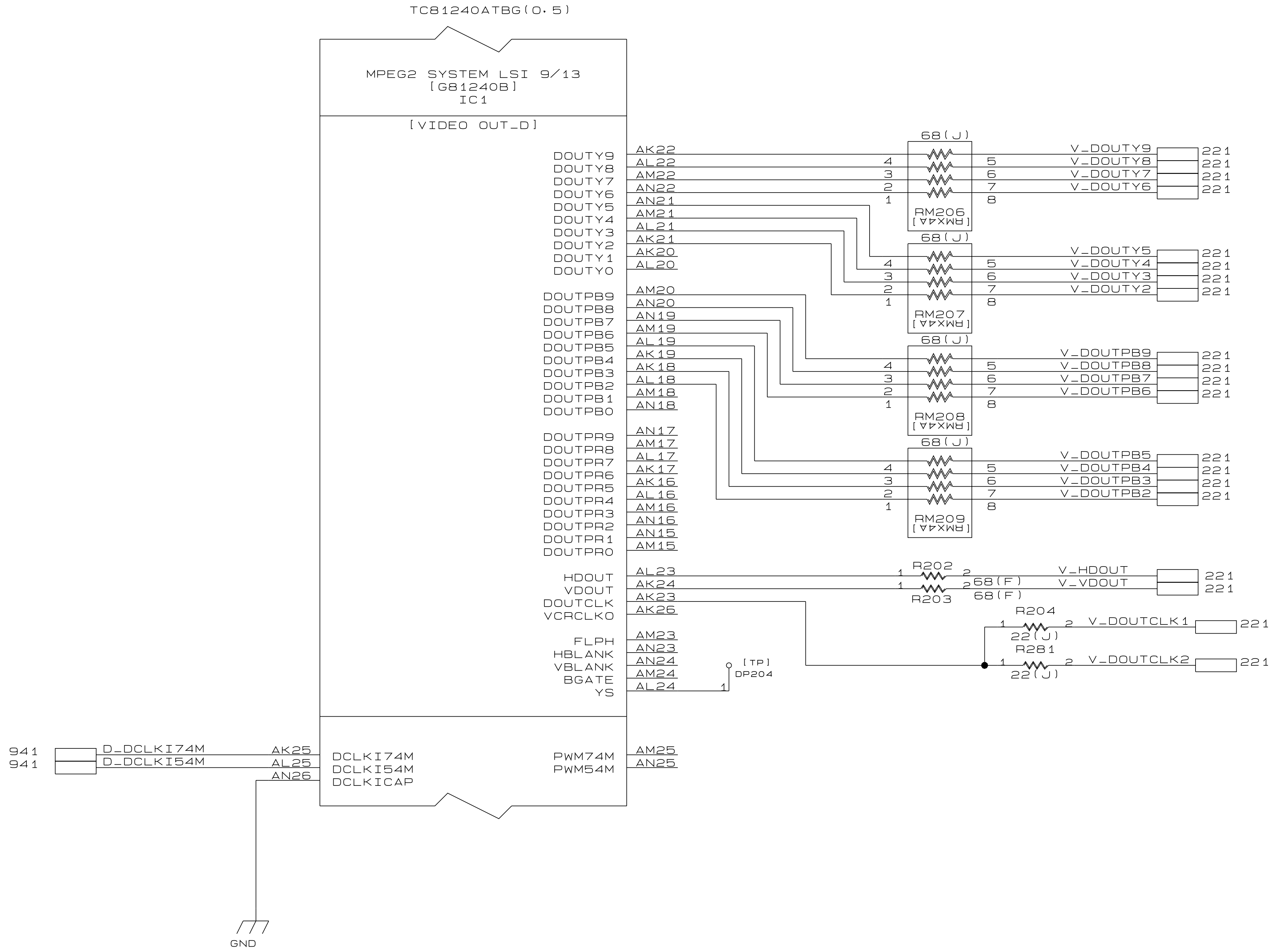
32HL95
SEINE FOR FPD
SEINE CAPTURE IN

SH. NO.
200


1
2
3
4
5
6
7
8
A
B
C
D
E
F
3.3V
NOT MOUNT
L202
2
1
+1.5V-FVIDEOA
+1.5V-FVIDEOD
NOT MOUNT
L203
1
2
NOT MOUNT
[LXXXEZ5MZ]
IC203
VIN
VC
GND
VO
NC
1
2
5
3
4
NOT MOUNT
C202
330nF(K)
2
1
2
+
[CP]
NOT MOUNT
C205
6.3V 22uF(M)
1
GND_V
6.5V
MOUNT
L222
2
1
+5V-VIDEO
GDM470000712
REG.
[LPQXXDZ]
IC221
ON/OFF
DCIN
DCOUT
NC
[GND]
PQ05DZ5UJ00H
2
1
4
3
5
C2006
470nF(K)
2
+
[CP]
C2004
1
33uF(M)
10V
GND_V
3.3V
NOT MOUNT
L201
2
1
+2.5V-SEINEDAC
NOT MOUNT
GDM470000708
PQ025EZ5MZPH
UREG
[LPQXXXEZ]
IC202
ON/OFF
DCIN
DCOUT
NC
[GND]
2
1
4
3
5
NOT MOUNT
C201
470nF(K)
+
[CP]
NOT MOUNT
C203
100nF(Z)
NOT MOUNT
C204
6.3V 22uF(M)
GND_V

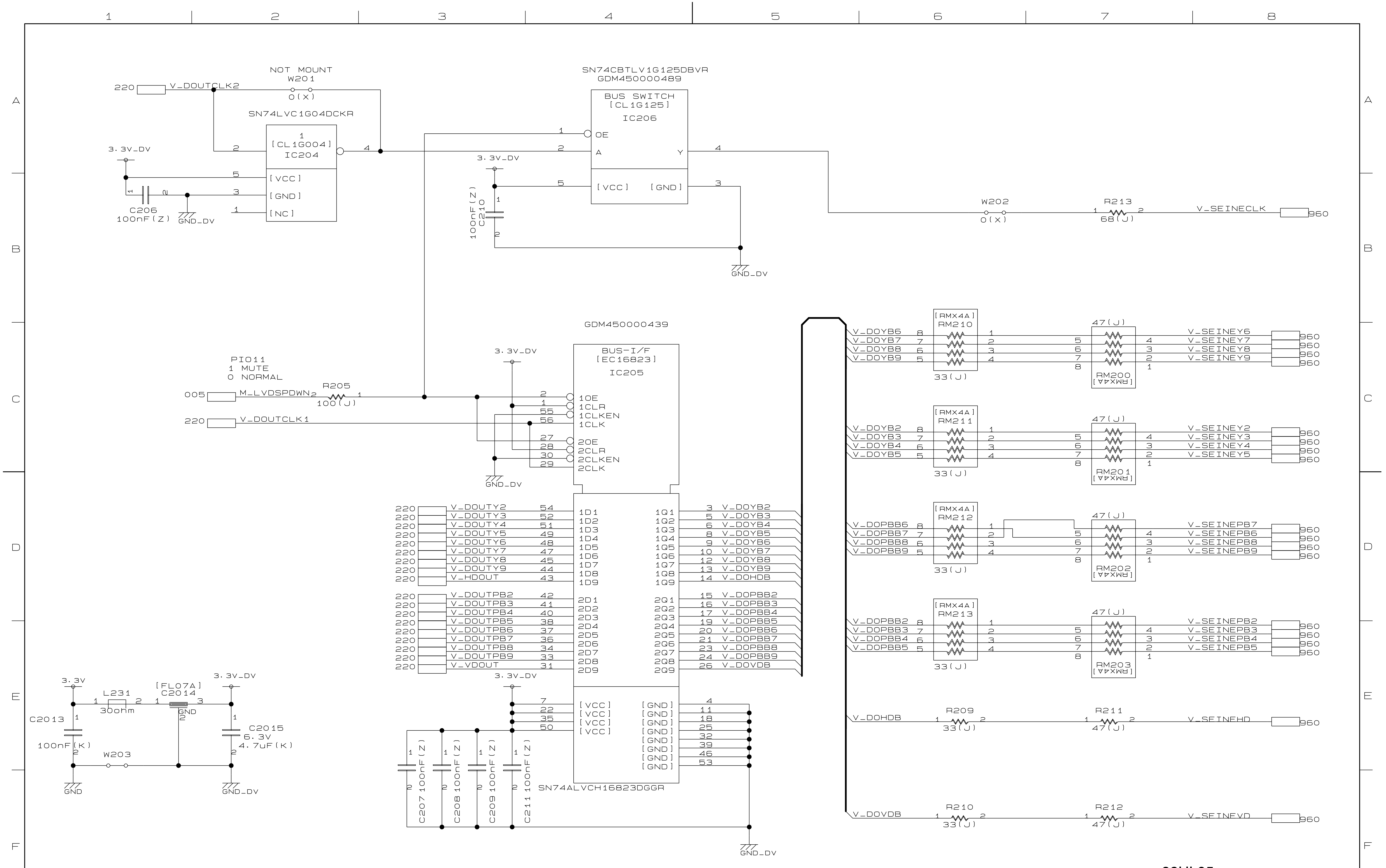
32HL95
SEINE FOR FPD
VIDEO POWER

SH. NO.
210


TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 9/13
[G81240B]
IC1
[VIDEO OUT_D]
DOUTY9 AK22
DOUTY8 AL22
DOUTY7 AM22
DOUTY6 AN22
DOUTY5 AN21
DOUTY4 AM21
DOUTY3 AL21
DOUTY2 AK21
DOUTY1 AK20
DOUTY0 AL20
DOUTPB9 AM20
DOUTPB8 AN20
DOUTPB7 AN19
DOUTPB6 AM19
DOUTPB5 AL19
DOUTPB4 AK19
DOUTPB3 AK18
DOUTPB2 AL18
DOUTPB1 AM18
DOUTPB0 AN18
DOUTPR9 AN17
DOUTPR8 AM17
DOUTPR7 AL17
DOUTPR6 AK17
DOUTPR5 AK16
DOUTPR4 AL16
DOUTPR3 AM16
DOUTPR2 AN16
DOUTPR1 AN15
DOUTPR0 AM15
HDOUT AL23
VDOUT AK24
DOUTCLK AK23
VCRCLK0 AK26
FLPH AM23
HBLANK AN23
VBLANK AN24
BGATE AM24
YS AL24
DCLKI74M AK25
DCLKI54M AL25
DCLKICAP AN26
PWM74M AM25
PWM54M AN25
941 D_DCLKI74M
941 D_DCLKI54M
GND
68(J)
RM206
[RMX4A]
RM207
[RMX4A]
RM208
[RMX4A]
RM209
[RMX4A]
4 3 2 1 5 6 7 8
V_DOUTY9 221
V_DOUTY8 221
V_DOUTY7 221
V_DOUTY6 221
V_DOUTY5 221
V_DOUTY4 221
V_DOUTY3 221
V_DOUTY2 221
V_DOUTPB9 221
V_DOUTPB8 221
V_DOUTPB7 221
V_DOUTPB6 221
V_DOUTPB5 221
V_DOUTPB4 221
V_DOUTPB3 221
V_DOUTPB2 221
R202 68(F)
R203 68(F)
V_HDOUT 221
V_VDOUT 221
R204 22(J)
R281 22(J)
V_DOUTCLK1 221
V_DOUTCLK2 221
[TP]
DP204

32HL95
SEINE FOR FPD
SEINE DIGITAL OUT

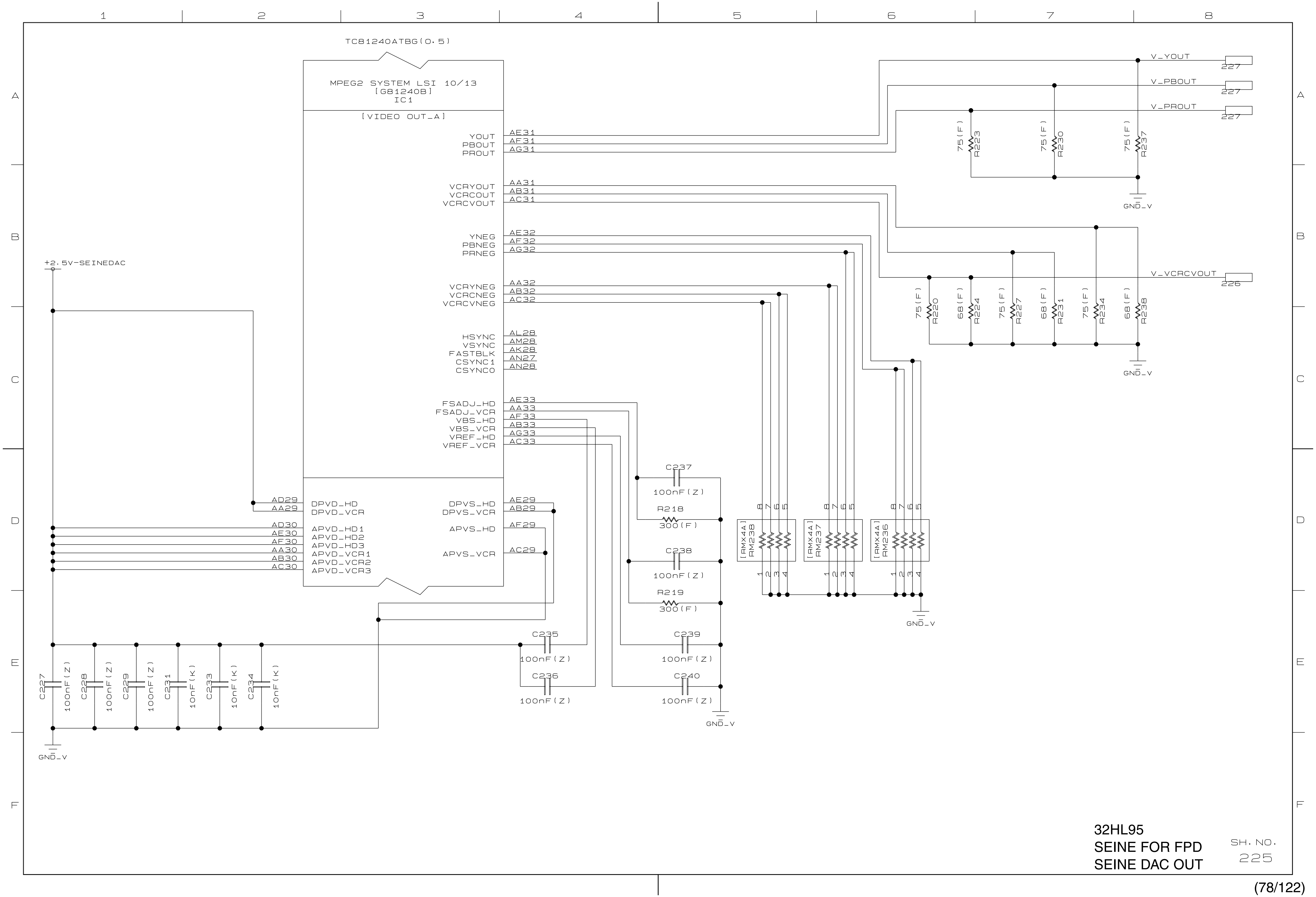
SH. NO.
220



1
2
3
4
5
6
7
8
A
B
C
D
E
F
NOT MOUNT
W201
0(X)
220
V_DOUTCLK2
SN74LVC1G04DCKR
1
[CL1G004]
IC204
[VCC]
[GND]
[NC]
3.3V_DV
C206
100nF(Z)
GND_DV
SN74CBTLV1G125DBVR
GDM450000489
BUS SWITCH
[CL1G125]
IC206
OE
A
Y
[VCC]
[GND]
100nF(Z)
C210
W202
0(X)
R213
68(J)
V_SEINECLK
960
GDM450000439
BUS-I/F
[EC16823]
IC205
PIO11
1 MUTE
0 NORMAL
005
M_LVDSPDWN
R205
100(J)
V_DOUTCLK1
1OE
1CLR
1CLKEN
1CLK
2OE
2CLR
2CLKEN
2CLK
V_DOUTY2
V_DOUTY3
V_DOUTY4
V_DOUTY5
V_DOUTY6
V_DOUTY7
V_DOUTY8
V_DOUTY9
V_HDOUT
V_DOUTPB2
V_DOUTPB3
V_DOUTPB4
V_DOUTPB5
V_DOUTPB6
V_DOUTPB7
V_DOUTPB8
V_DOUTPB9
V_VDOUT
1D1
1D2
1D3
1D4
1D5
1D6
1D7
1D8
1D9
2D1
2D2
2D3
2D4
2D5
2D6
2D7
2D8
2D9
1Q1
1Q2
1Q3
1Q4
1Q5
1Q6
1Q7
1Q8
1Q9
2Q1
2Q2
2Q3
2Q4
2Q5
2Q6
2Q7
2Q8
2Q9
V_D0YB2
V_D0YB3
V_D0YB4
V_D0YB5
V_D0YB6
V_D0YB7
V_D0YB8
V_D0YB9
V_D0HDB
V_D0PBB2
V_D0PBB3
V_D0PBB4
V_D0PBB5
V_D0PBB6
V_D0PBB7
V_D0PBB8
V_D0PBB9
V_D0VDB
[VCC]
[GND]
SN74ALVCH16823DGGR
C207 100nF(Z)
C208 100nF(Z)
C209 100nF(Z)
C211 100nF(Z)
3.3V
L231
30ohm
[FL07A]
C2014
GND
C2013
100nF(K)
C2015
6.3V
4.7uF(K)
W203
GND
[RMX4A]
RM210
33(J)
47(J)
RM200
[RMX4A]
V_SEINEY6
V_SEINEY7
V_SEINEY8
V_SEINEY9
RM211
RM201
V_SEINEY2
V_SEINEY3
V_SEINEY4
V_SEINEY5
RM212
RM202
V_SEINEPB7
V_SEINEPB6
V_SEINEPB8
V_SEINEPB9
RM213
RM203
V_SEINEPB2
V_SEINEPB3
V_SEINEPB4
V_SEINEPB5
R209
33(J)
R211
47(J)
V_SEINEHD
R210
33(J)
R212
47(J)
V_SEINEVD

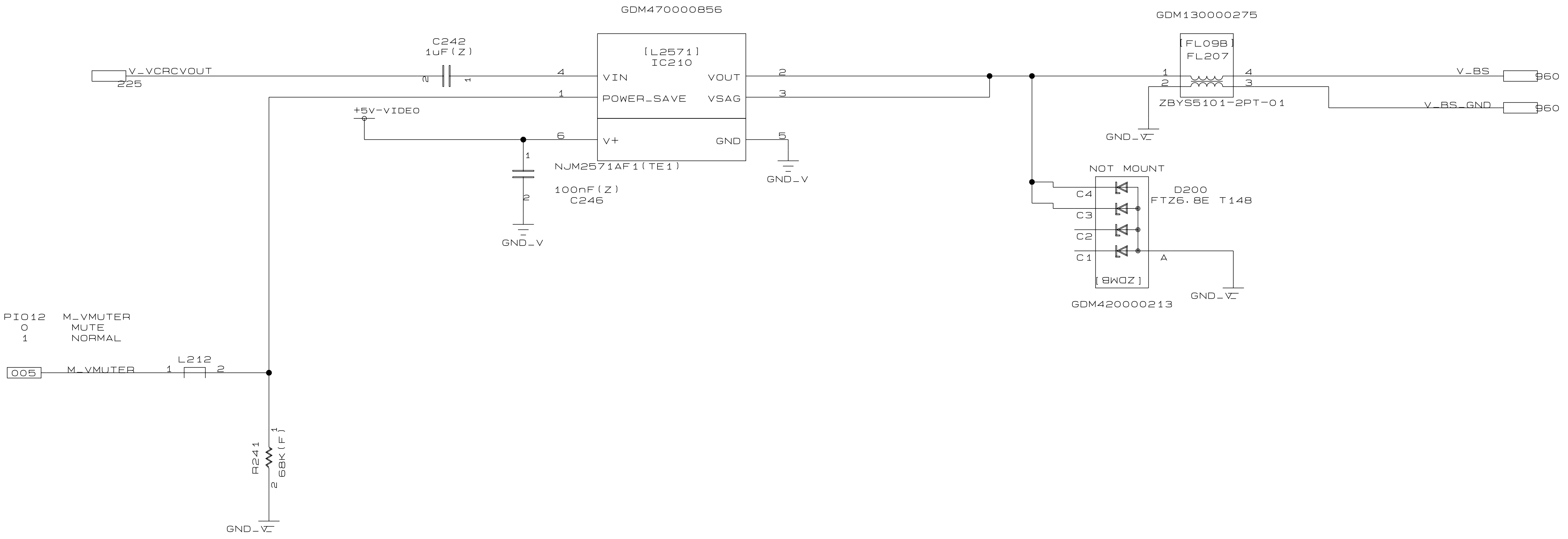
32HL95
SEINE FOR FPD
SEINE-BEP IF

SH. NO.
221


1
2
3
4
5
6
7
8
A
B
C
D
E
F
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 10/13
[G81240B]
IC1
[VIDEO OUT_A]
YOUT AE31
PBOUT AF31
PROUT AG31
VCRYOUT AA31
VCRCOUT AB31
VCRCVOUT AC31
YNEG AE32
PBNEG AF32
PRNEG AG32
VCRYNEG AA32
VCRCNEG AB32
VCRCVNEG AC32
HSYNC AL28
VSYNC AM28
FASTBLK AK28
CSYNC1 AN27
CSYNC0 AN28
FSADJ_HD AE33
FSADJ_VCR AA33
VBS_HD AF33
VBS_VCR AB33
VREF_HD AG33
VREF_VCR AC33
AD29 DPVD_HD
AA29 DPVD_VCR
AD30 APVD_HD1
AE30 APVD_HD2
AF30 APVD_HD3
AA30 APVD_VCR1
AB30 APVD_VCR2
AC30 APVD_VCR3
DPVS_HD AE29
DPVS_VCR AB29
APVS_HD AF29
APVS_VCR AC29
+2.5V-SEINEDAC
V_YOUT 227
V_PBOUT 227
V_PROUT 227
V_VCRCVOUT 226
75(F) R223
75(F) R230
75(F) R237
75(F) R220
68(F) R224
75(F) R227
68(F) R231
75(F) R234
68(F) R238
GND_V
C237 100nF(Z)
R218 300(F)
C238 100nF(Z)
R219 300(F)
C239 100nF(Z)
C240 100nF(Z)
C235 100nF(Z)
C236 100nF(Z)
[RMX4A] RM238
[RMX4A] RM237
[RMX4A] RM236
8 7 6 5
1 2 3 4
C227 100nF(Z)
C228 100nF(Z)
C229 100nF(Z)
C231 10nF(K)
C233 10nF(K)
C234 10nF(K)

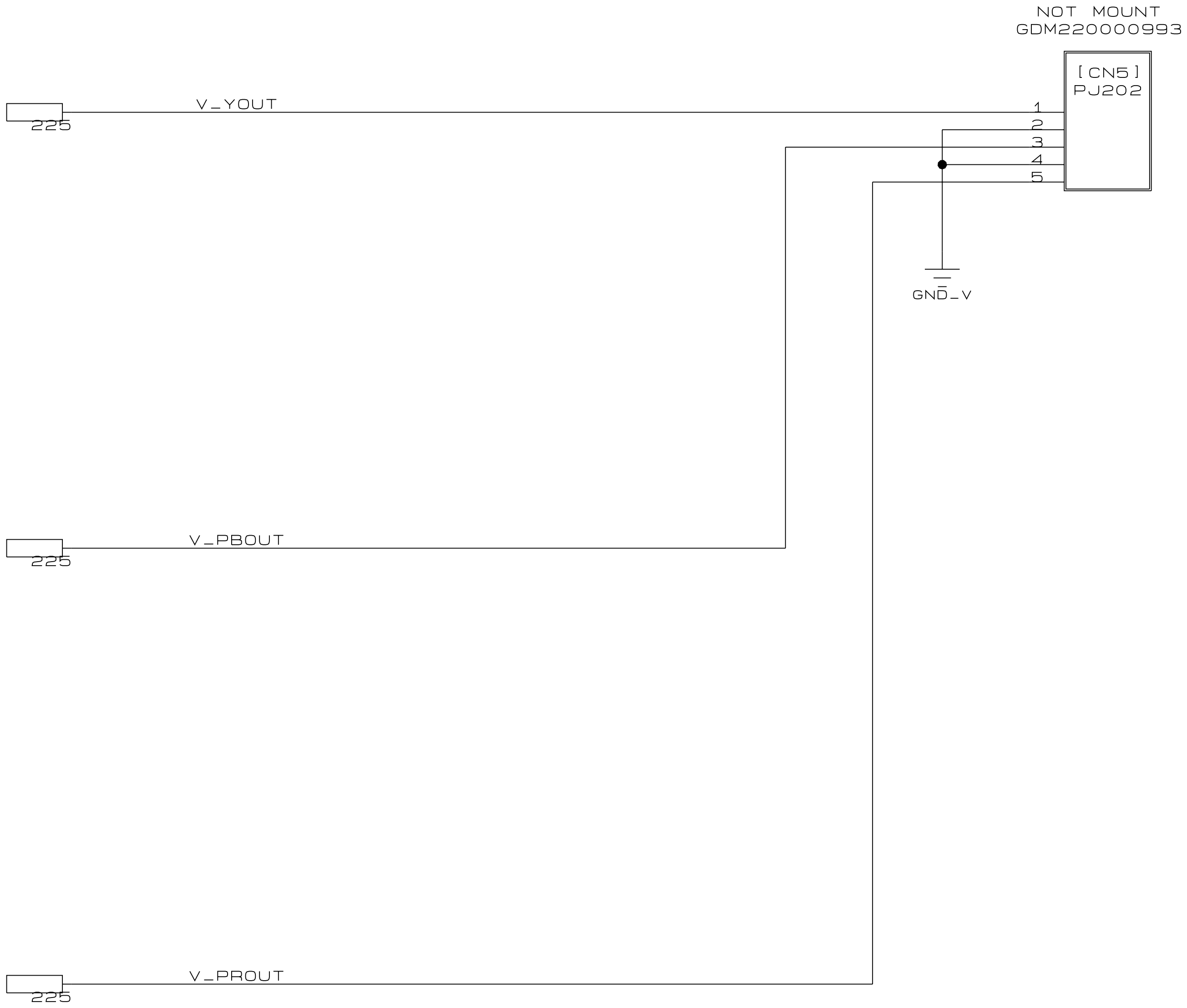
32HL95
SEINE FOR FPD
SEINE DAC OUT

SH. NO.
225


GDM470000856
[L2571]
IC210
VIN
POWER_SAVE
VOUT
VSAG
V+
GND
NJM2571AF1(TE1)
C242
1uF(Z)
V_VCRCVOUT
225
+5V-VIDEO
100nF(Z)
C246
GND_V
GDM130000275
[FL09B]
FL207
ZBYS5101-2PT-01
V_BS
V_BS_GND
960
960
NOT MOUNT
D200
FTZ6.8E T148
C4
C3
C2
C1
A
[ZDM8]
GDM420000213
PIO12 M_VMUTER
0 MUTE
1 NORMAL
005
M_VMUTER
L212
R241
68K(F)

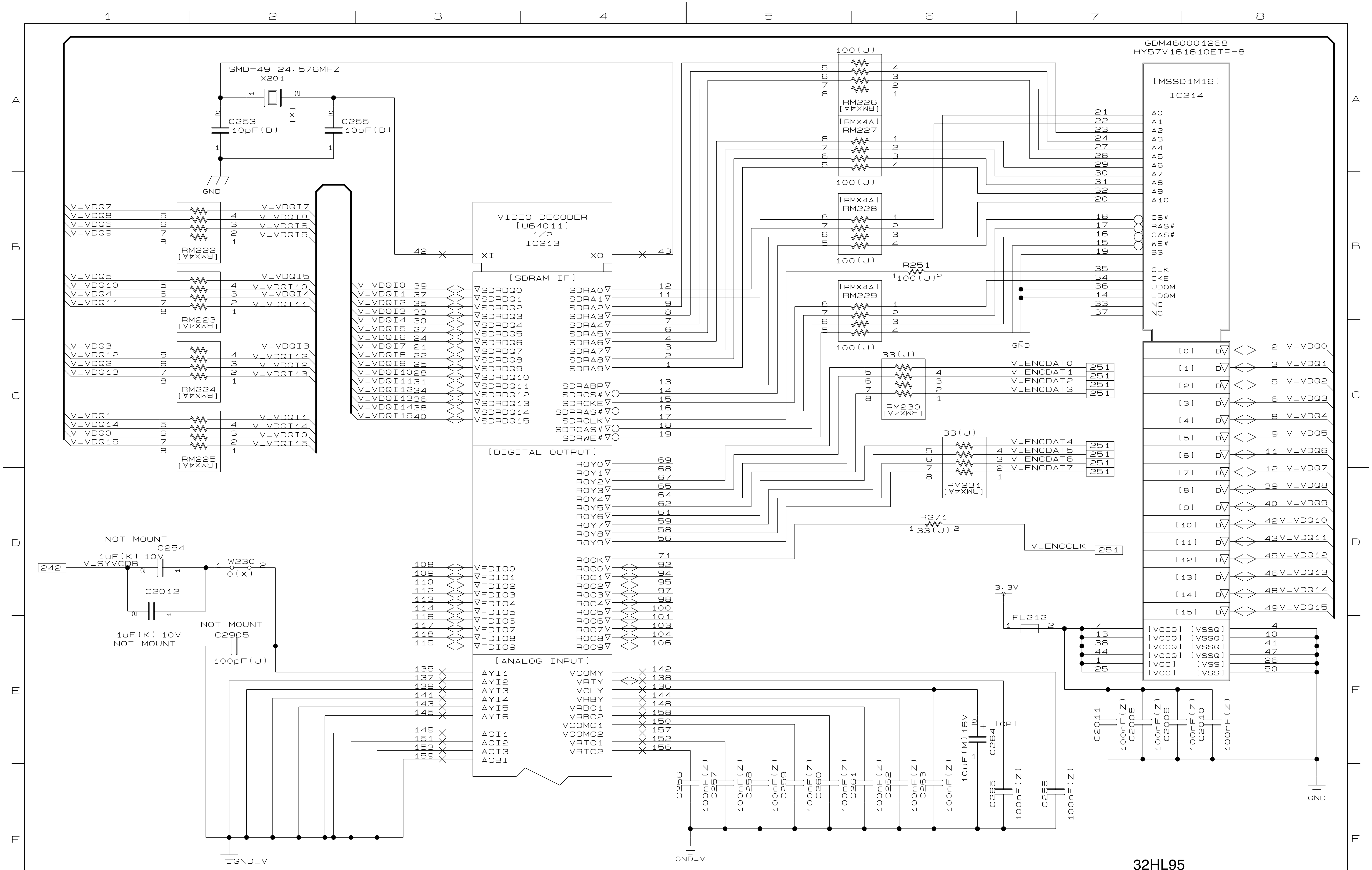
32HL95
SEINE FOR FPD
DOWN CON OUT DRIVER

SH. NO.
226


NOT MOUNT
GDM220000993
[CN5]
PJ202
1
2
3
4
5
V_YOUT
225
V_PBOUT
225
V_PROUT
225
GND_V

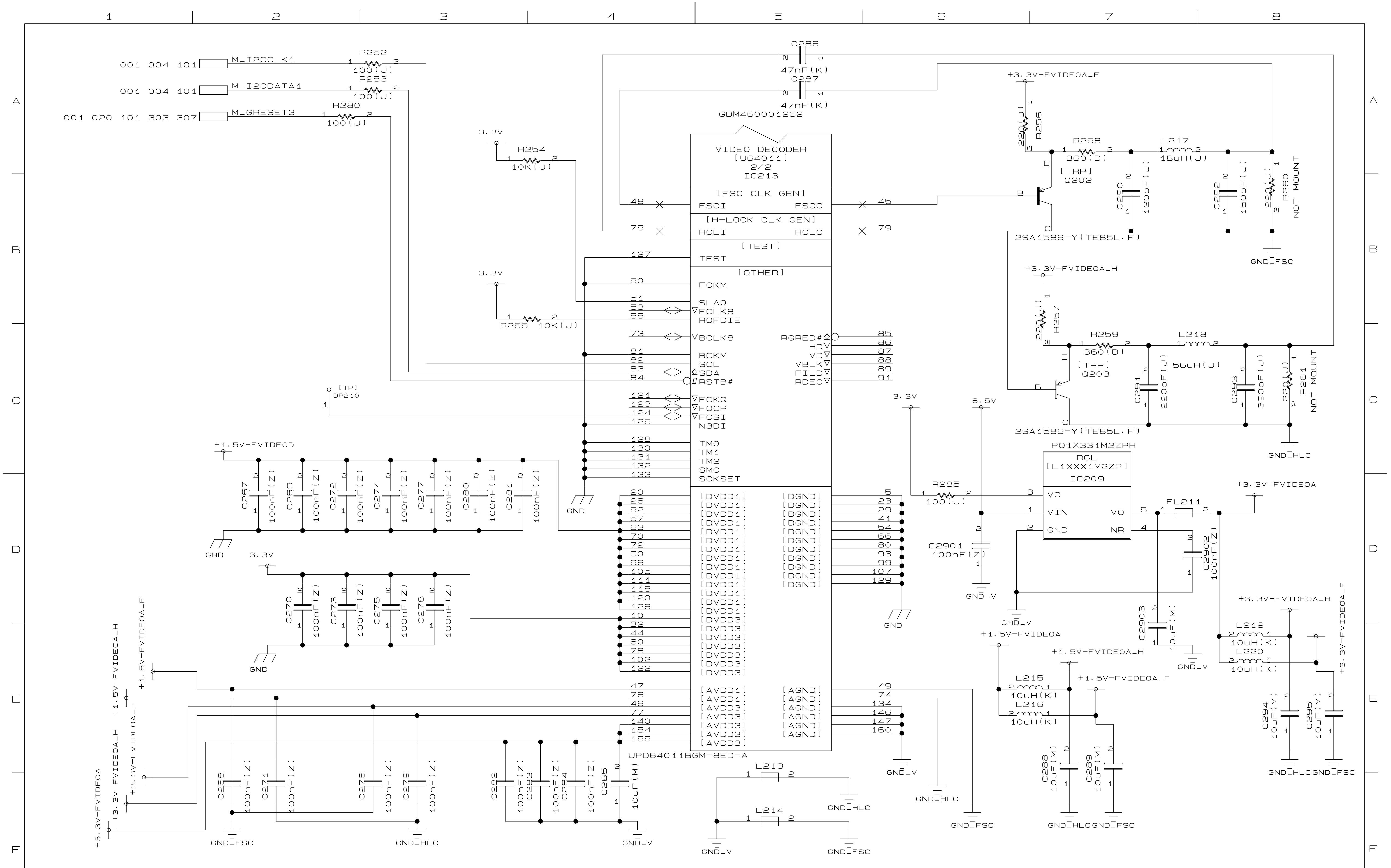
32HL95
SEINE FOR FPD
HD OUT LPF

SH. NO.
227


1
2
3
4
5
6
7
8
A
B
C
D
E
F
SMD-49 24.576MHZ
X201
[X]
C253
10pF(D)
C255
10pF(D)
GND
VIDEO DECODER
[U64011]
1/2
IC213
XI
XO
42
43
[SDRAM IF]
V_VDQI0 39
V_VDQI1 37
V_VDQI2 35
V_VDQI3 33
V_VDQI4 30
V_VDQI5 27
V_VDQI6 24
V_VDQI7 21
V_VDQI8 22
V_VDQI9 25
V_VDQI10 28
V_VDQI11 31
V_VDQI12 34
V_VDQI13 36
V_VDQI14 38
V_VDQI15 40
SDRDQ0
SDRDQ1
SDRDQ2
SDRDQ3
SDRDQ4
SDRDQ5
SDRDQ6
SDRDQ7
SDRDQ8
SDRDQ9
SDRDQ10
SDRDQ11
SDRDQ12
SDRDQ13
SDRDQ14
SDRDQ15
SDRA0 12
SDRA1 11
SDRA2 9
SDRA3 8
SDRA4 7
SDRA5 6
SDRA6 4
SDRA7 3
SDRA8 2
SDRA9 1
SDRABP 13
SDRCS# 14
SDRCKE 15
SDRRAS# 16
SDRCLK 17
SDRCAS# 18
SDRWE# 19
[DIGITAL OUTPUT]
ROY0 69
ROY1 68
ROY2 67
ROY3 65
ROY4 64
ROY5 62
ROY6 61
ROY7 59
ROY8 58
ROY9 56
ROCK 71
ROC0 92
ROC1 94
ROC2 95
ROC3 97
ROC4 98
ROC5 100
ROC6 101
ROC7 103
ROC8 104
ROC9 106
108 FDIO0
109 FDIO1
110 FDIO2
112 FDIO3
113 FDIO4
114 FDIO5
116 FDIO6
117 FDIO7
118 FDIO8
119 FDIO9
[ANALOG INPUT]
135 AYI1
137 AYI2
139 AYI3
141 AYI4
143 AYI5
145 AYI6
149 ACI1
151 ACI2
153 ACI3
159 ACBI
VCOMY 142
VRTY 138
VCLY 136
VRBY 144
VRBC1 148
VRBC2 158
VCOMC1 150
VCOMC2 157
VRTC1 152
VRTC2 156
V_VDQ7
V_VDQ8
V_VDQ6
V_VDQ9
RM222
[RMX4A]
V_VDQI7
V_VDQI8
V_VDQI6
V_VDQI9
V_VDQ5
V_VDQ10
V_VDQ4
V_VDQ11
RM223
[RMX4A]
V_VDQI5
V_VDQI10
V_VDQI4
V_VDQI11
V_VDQ3
V_VDQ12
V_VDQ2
V_VDQ13
RM224
[RMX4A]
V_VDQI3
V_VDQI12
V_VDQI2
V_VDQI13
V_VDQ1
V_VDQ14
V_VDQ0
V_VDQ15
RM225
[RMX4A]
V_VDQI1
V_VDQI14
V_VDQI0
V_VDQI15
100(J)
RM226
[RMX4A]
RM227
100(J)
RM228
100(J)
R251
100(J)
RM229
100(J)
33(J)
RM230
[RMX4A]
V_ENCDAT0
V_ENCDAT1
V_ENCDAT2
V_ENCDAT3
251
33(J)
RM231
[RMX4A]
V_ENCDAT4
V_ENCDAT5
V_ENCDAT6
V_ENCDAT7
R271
33(J)
V_ENCCLK
251
GDM460001268
HY57V161610ETP-8
[MSSD1M16]
IC214
21 A0
22 A1
23 A2
24 A3
27 A4
28 A5
29 A6
30 A7
31 A8
32 A9
20 A10
18 CS#
17 RAS#
16 CAS#
15 WE#
19 BS
35 CLK
34 CKE
36 UDQM
14 LDQM
33 NC
37 NC
GND
[0] 2 V_VDQ0
[1] 3 V_VDQ1
[2] 5 V_VDQ2
[3] 6 V_VDQ3
[4] 8 V_VDQ4
[5] 9 V_VDQ5
[6] 11 V_VDQ6
[7] 12 V_VDQ7
[8] 39 V_VDQ8
[9] 40 V_VDQ9
[10] 42 V_VDQ10
[11] 43 V_VDQ11
[12] 45 V_VDQ12
[13] 46 V_VDQ13
[14] 48 V_VDQ14
[15] 49 V_VDQ15
3.3V
FL212
7 [VCCQ] [VSSQ] 4
13 [VCCQ] [VSSQ] 10
38 [VCCQ] [VSSQ] 41
44 [VCCQ] [VSSQ] 47
1 [VCC] [VSS] 26
25 [VCC] [VSS] 50
C2011 100nF(Z)
C2008 100nF(Z)
C2009 100nF(Z)
C2010 100nF(Z)
GND
NOT MOUNT
C254
1uF(K) 10V
V_SYVCDB
242
W230
0(X)
C2012
1uF(K) 10V
NOT MOUNT
NOT MOUNT
C2905
100pF(J)
GND_V
C256 100nF(Z)
C257 100nF(Z)
C258 100nF(Z)
C259 100nF(Z)
C260 100nF(Z)
C261 100nF(Z)
C262 100nF(Z)
C263 100nF(Z)
C264 10uF(M)16V [CP]
C265 100nF(Z)
C266 100nF(Z)
GND_V

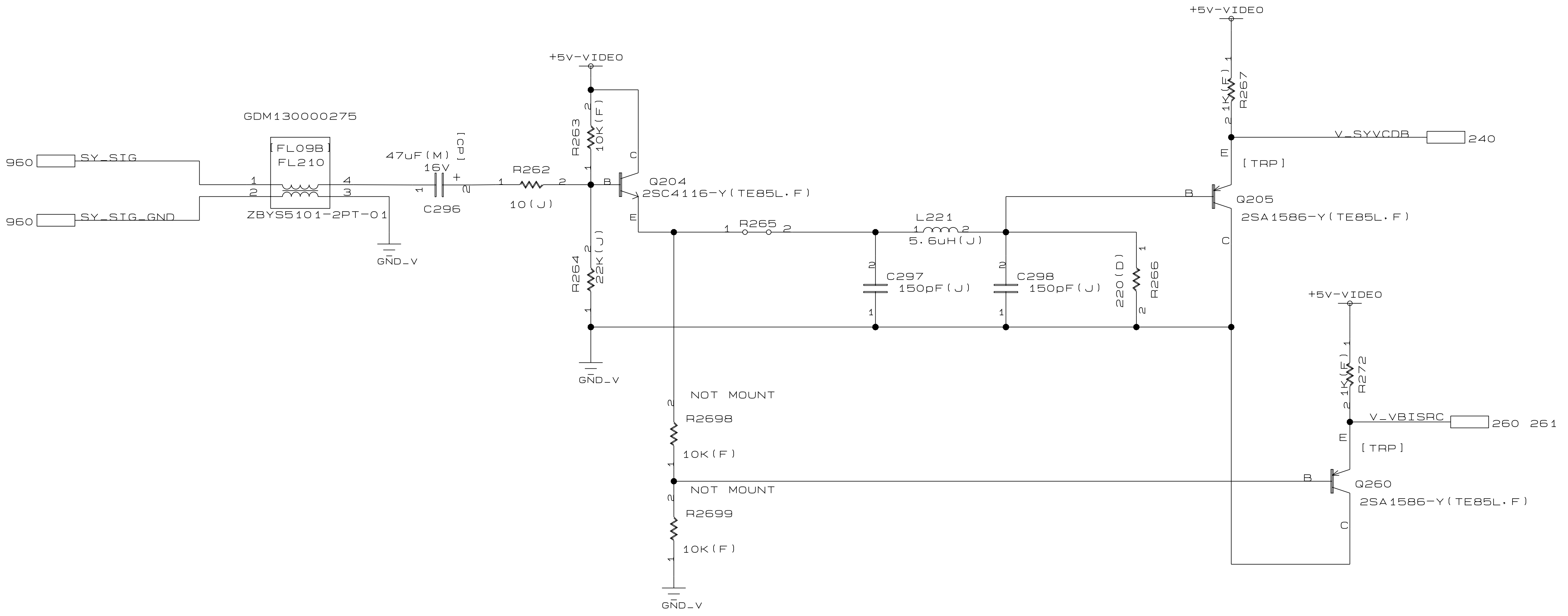
32HL95
SEINE FOR FPD
MACRO VCD (1/2)

SH. NO.
240


001 004 101 M_I2CCLK1
001 004 101 M_I2CDATA1
001 020 101 303 307 M_GRESET3
R252 100(J)
R253 100(J)
R280 100(J)
C286 47nF(K)
C287 47nF(K)
GDM460001262
3.3V
R254 10K(J)
R255 10K(J)
VIDEO DECODER
[U64011]
2/2
IC213
[FSC CLK GEN]
FSCI
FSCO
[H-LOCK CLK GEN]
HCLI
HCLO
[TEST]
TEST
[OTHER]
FCKM
SLA0
FCLK8
ROFDIE
BCLK8
BCKM
SCL
SDA
RSTB#
FCKQ
FOCP
FCSI
N3DI
TM0
TM1
TM2
SMC
SCKSET
RGRED#
HD
VD
VBLK
FILD
RDEO
[DVDD1]
[DVDD3]
[DGND]
[AVDD1]
[AVDD3]
[AGND]
UPD64011BGM-8ED-A
[TP]
DP210
+1.5V-FVIDEOD
C267 C269 C272 C274 C277 C280 C281 100nF(Z)
C270 C273 C275 C278 100nF(Z)
C268 C271 C276 C279 C282 C283 C284 100nF(Z)
C285 10uF(M)
GND
GND_FSC
GND_HLC
GND_V
+1.5V-FVIDEOA_F
+1.5V-FVIDEOA_H
+3.3V-FVIDEOA_F
+3.3V-FVIDEOA_H
+3.3V-FVIDEOA
L213
L214
+3.3V-FVIDEOA_F
R256 220(J)
R258 360(D)
L217 18uH(J)
[TRP]
Q202
C290 120pF(J)
C292 150pF(J)
R260 220(J) NOT MOUNT
2SA1586-Y(TE85L.F)
+3.3V-FVIDEOA_H
R257 220(J)
R259 360(D)
L218 56uH(J)
Q203
C291 220pF(J)
C293 390pF(J)
R261 220(J) NOT MOUNT
2SA1586-Y(TE85L.F)
PQ1X331M2ZPH
RGL
[L1XXX1M2ZP]
IC209
VC
VIN
GND
VO
NR
6.5V
R285 100(J)
C2901 100nF(Z)
FL211
C2902 100nF(Z)
C2903 10uF(M)
+1.5V-FVIDEOA
L215 10uH(K)
L216 10uH(K)
+1.5V-FVIDEOA_H
+1.5V-FVIDEOA_F
C288 10uF(M)
C289 10uF(M)
L219 10uH(K)
L220 10uH(K)
C294 10uF(M)
C295 10uF(M)

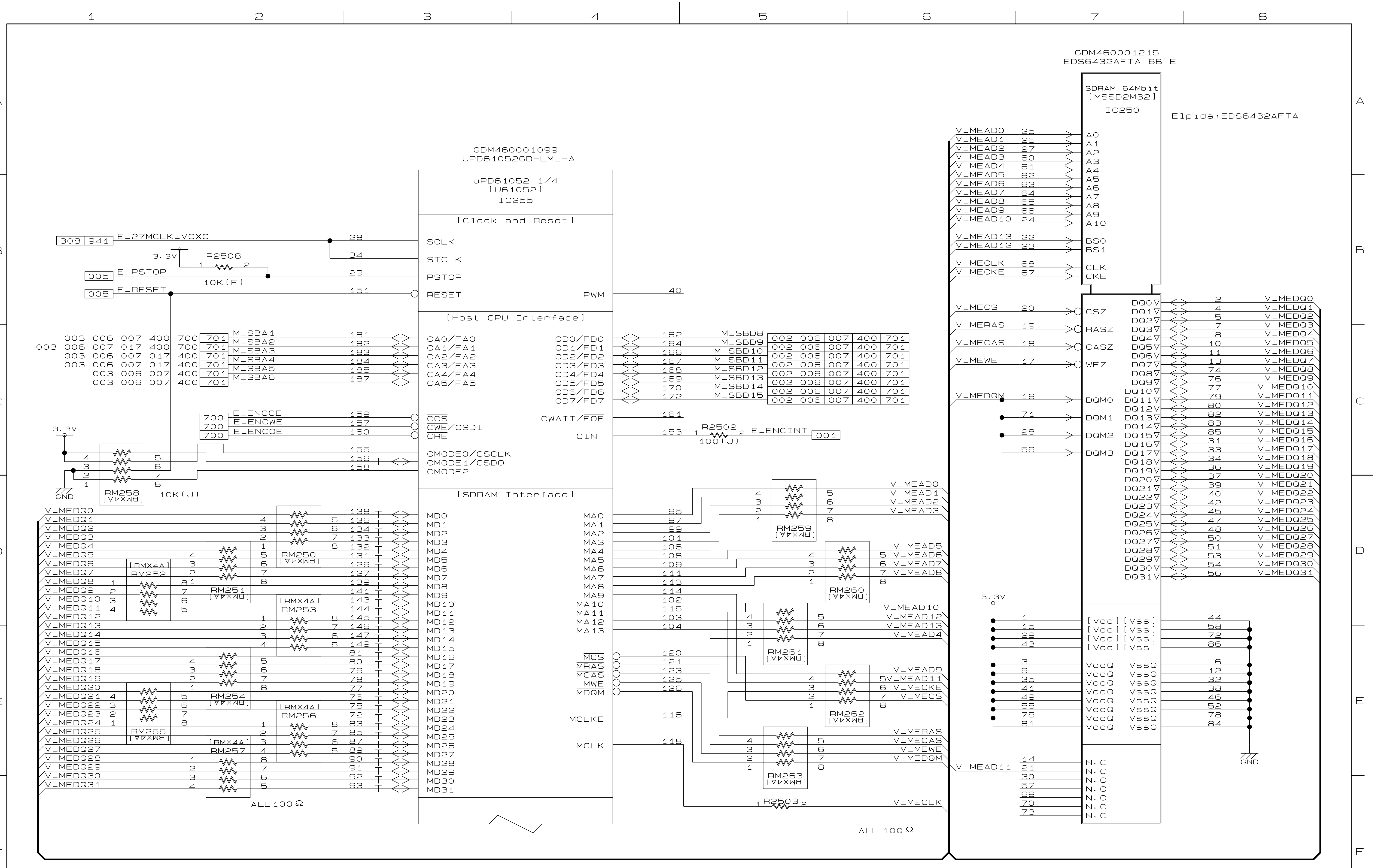
32HL95
SEINE FOR FPD
MACRO VCD (22)

SH. NO.
241


960
SY_SIG
960
SY_SIG_GND
GDM130000275
[FL09B]
FL210
ZBYS5101-2PT-01
GND_V
47uF(M)
16V
[CP]
C296
R262
10(J)
+5V-VIDEO
R263
10K(F)
R264
22K(J)
GND_V
Q204
2SC4116-Y(TE85L.F)
R265
L221
5.6uH(J)
C297
150pF(J)
C298
150pF(J)
220(D)
R266
NOT MOUNT
R2698
10K(F)
NOT MOUNT
R2699
10K(F)
GND_V
+5V-VIDEO
1K(F)
R267
V_SYVCDB
240
[TRP]
Q205
2SA1586-Y(TE85L.F)
+5V-VIDEO
1K(F)
R272
V_VBISRC
260 261
[TRP]
Q260
2SA1586-Y(TE85L.F)

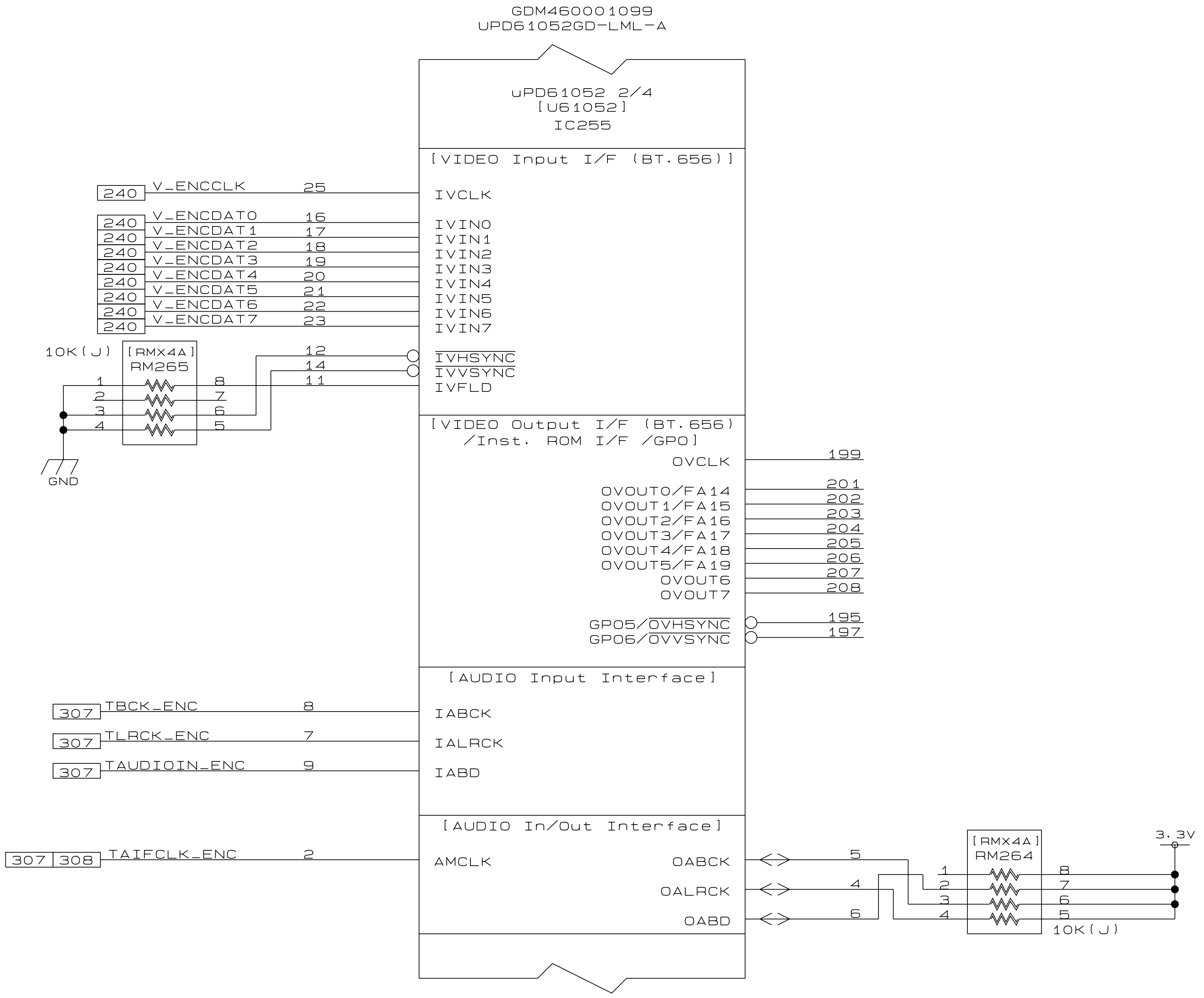
32HL95
SEINE FOR FPD
VIDEO LPF

SH. NO.
242


GDM460001099
UPD61052GD-LML-A
uPD61052 1/4
[U61052]
IC255
[Clock and Reset]
SCLK
STCLK
PSTOP
RESET
PWM
[Host CPU Interface]
CA0/FA0
CA1/FA1
CA2/FA2
CA3/FA3
CA4/FA4
CA5/FA5
CD0/FD0
CD1/FD1
CD2/FD2
CD3/FD3
CD4/FD4
CD5/FD5
CD6/FD6
CD7/FD7
CCS
CWE/CSDI
CRE
CWAIT/FOE
CINT
CMODE0/CSCLK
CMODE1/CSDO
CMODE2
[SDRAM Interface]
MD0
MD1
MD2
MD3
MD4
MD5
MD6
MD7
MD8
MD9
MD10
MD11
MD12
MD13
MD14
MD15
MD16
MD17
MD18
MD19
MD20
MD21
MD22
MD23
MD24
MD25
MD26
MD27
MD28
MD29
MD30
MD31
MA0
MA1
MA2
MA3
MA4
MA5
MA6
MA7
MA8
MA9
MA10
MA11
MA12
MA13
MCS
MRAS
MCAS
MWE
MDQM
MCLKE
MCLK
E_27MCLK_VCXO
308
941
E_PSTOP
E_RESET
005
3.3V
R2508
10K(F)
M_SBA1
M_SBA2
M_SBA3
M_SBA4
M_SBA5
M_SBA6
M_SBD8
M_SBD9
M_SBD10
M_SBD11
M_SBD12
M_SBD13
M_SBD14
M_SBD15
E_ENCCE
E_ENCWE
E_ENCOE
E_ENCINT
R2502
100(J)
001
RM258
[RMX4A]
10K(J)
GND
RM250
RM251
RM252
RM253
RM254
RM255
RM256
RM257
ALL 100Ω
RM259
RM260
RM261
RM262
RM263
R2503
V_MECLK
ALL 100Ω
GDM460001215
EDS6432AFTA-6B-E
SDRAM 64Mbit
[MSSD2M32]
IC250
Elpida:EDS6432AFTA
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9
A10
BS0
BS1
CLK
CKE
CSZ
RASZ
CASZ
WEZ
DQM0
DQM1
DQM2
DQM3
DQ0
DQ31
[Vcc] [Vss]
VccQ
VssQ
N.C
V_MEAD0
V_MEAD1
V_MEAD2
V_MEAD3
V_MEAD4
V_MEAD5
V_MEAD6
V_MEAD7
V_MEAD8
V_MEAD9
V_MEAD10
V_MEAD11
V_MEAD12
V_MEAD13
V_MECLK
V_MECKE
V_MECS
V_MERAS
V_MECAS
V_MEWE
V_MEDQM
V_MEDQ0
V_MEDQ31
1
2
3
4
5
6
7
8

32HL95
SEINE FOR FPD
MPEG Enc. (CLK, SDRAM)

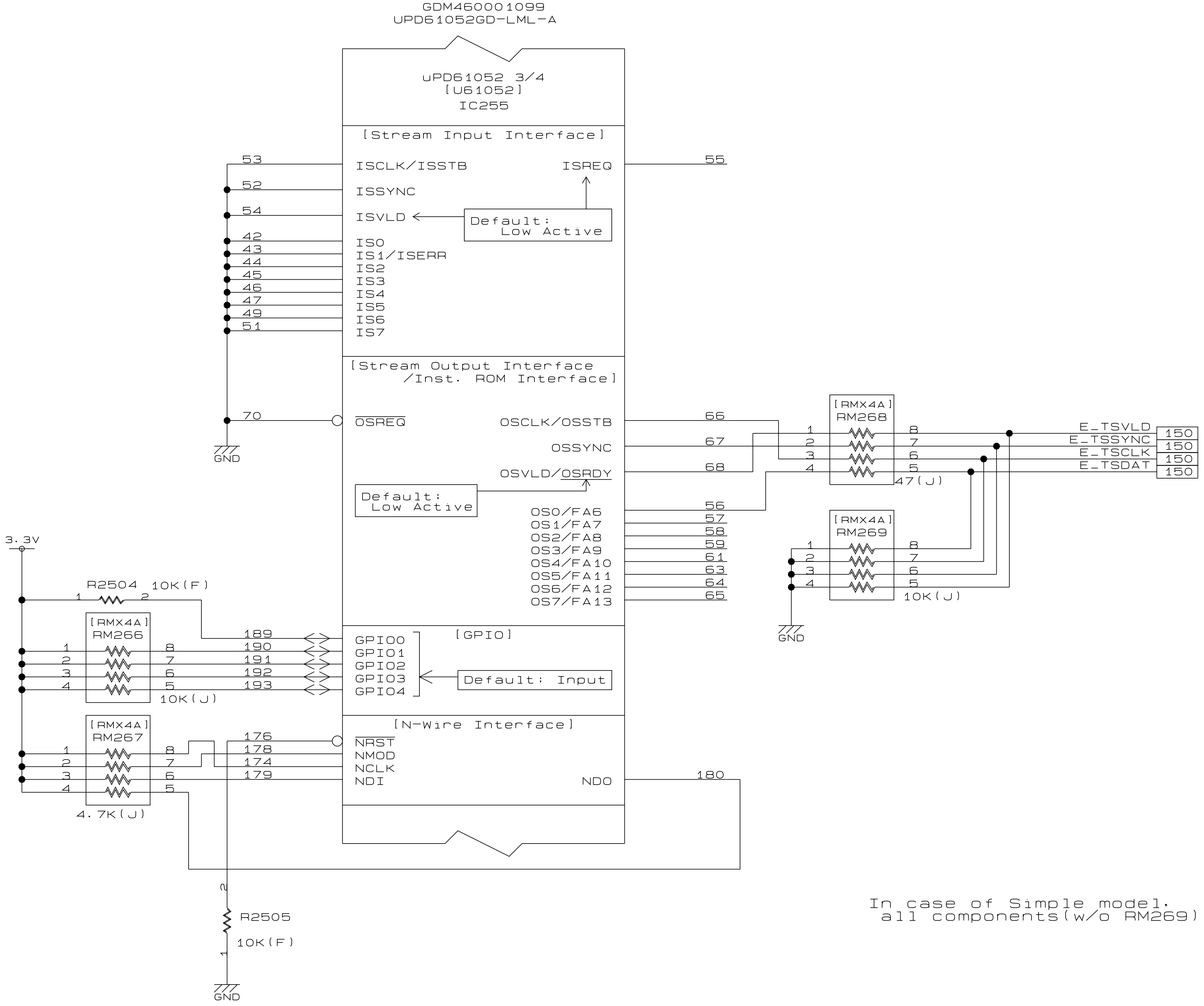
SH. NO.
250


GDM460001099
UPD61052GD-LML-A
uPD61052 2/4
[U61052]
IC255
[VIDEO Input I/F (BT.656)]
240 V_ENCCLK 25 IVCLK
240 V_ENCDAT0 16 IVIN0
240 V_ENCDAT1 17 IVIN1
240 V_ENCDAT2 18 IVIN2
240 V_ENCDAT3 19 IVIN3
240 V_ENCDAT4 20 IVIN4
240 V_ENCDAT5 21 IVIN5
240 V_ENCDAT6 22 IVIN6
240 V_ENCDAT7 23 IVIN7
10K(J) [RMX4A] RM265
1 2 3 4 8 7 6 5
12 IVHSYNC
14 IVVSYNC
11 IVFLD
GND
[VIDEO Output I/F (BT.656)
/Inst. ROM I/F /GPO]
OVCLK 199
OVOUT0/FA14 201
OVOUT1/FA15 202
OVOUT2/FA16 203
OVOUT3/FA17 204
OVOUT4/FA18 205
OVOUT5/FA19 206
OVOUT6 207
OVOUT7 208
GP05/OVHSYNC 195
GP06/OVVSYNC 197
[AUDIO Input Interface]
307 TBCK_ENC 8 IABCK
307 TLRCK_ENC 7 IALRCK
307 TAUDIOIN_ENC 9 IABD
[AUDIO In/Out Interface]
307 308 TAIFCLK_ENC 2 AMCLK
OABCK 5
OALRCK 4
OABD 6
[RMX4A] RM264
1 2 3 4 8 7 6 5
10K(J)
3.3V

In case of Simple model.
all components are not mounted.

32HL95
SEINE FOR FPD
MPEG Enc. (AV I/F)

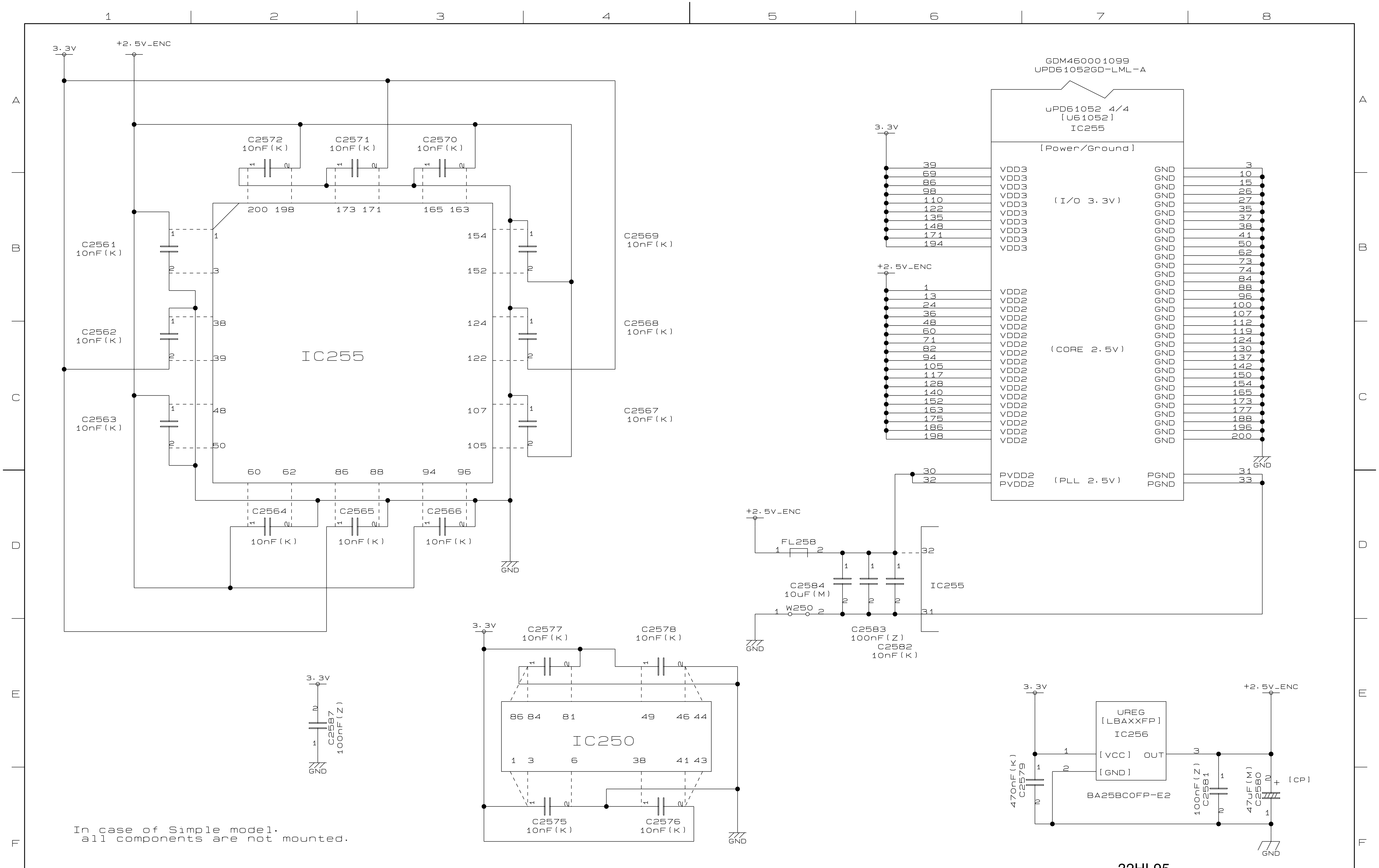
SH. NO.
251


GDM460001099
UPD61052GD-LML-A
uPD61052 3/4
[U61052]
IC255
[Stream Input Interface]
53
ISCLK/ISSTB
ISREQ
55
52
ISSYNC
54
ISVLD
Default:
Low Active
42
43
44
45
46
47
49
51
IS0
IS1/ISERR
IS2
IS3
IS4
IS5
IS6
IS7
[Stream Output Interface
/Inst. ROM Interface]
70
OSREQ
GND
OSCLK/OSSTB
OSSYNC
OSVLD/OSRDY
66
67
68
Default:
Low Active
OS0/FA6
OS1/FA7
OS2/FA8
OS3/FA9
OS4/FA10
OS5/FA11
OS6/FA12
OS7/FA13
56
57
58
59
61
63
64
65
[RMX4A]
RM268
47(J)
E_TSVLD
E_TSSYNC
E_TSCLK
E_TSDAT
150
150
150
150
[RMX4A]
RM269
10K(J)
GND
3.3V
R2504
10K(F)
[RMX4A]
RM266
10K(J)
189
190
191
192
193
GPIO0
GPIO1
GPIO2
GPIO3
GPIO4
[GPIO]
Default: Input
[RMX4A]
RM267
4.7K(J)
176
178
174
179
[N-Wire Interface]
NRST
NMOD
NCLK
NDI
NDO
180
R2505
10K(F)
GND

In case of Simple model.
all components(w/o RM269) are not mounted.

32HL95
SEINE FOR FPD
MPEG Enc. (STREAM I/F)

SH. NO.
252

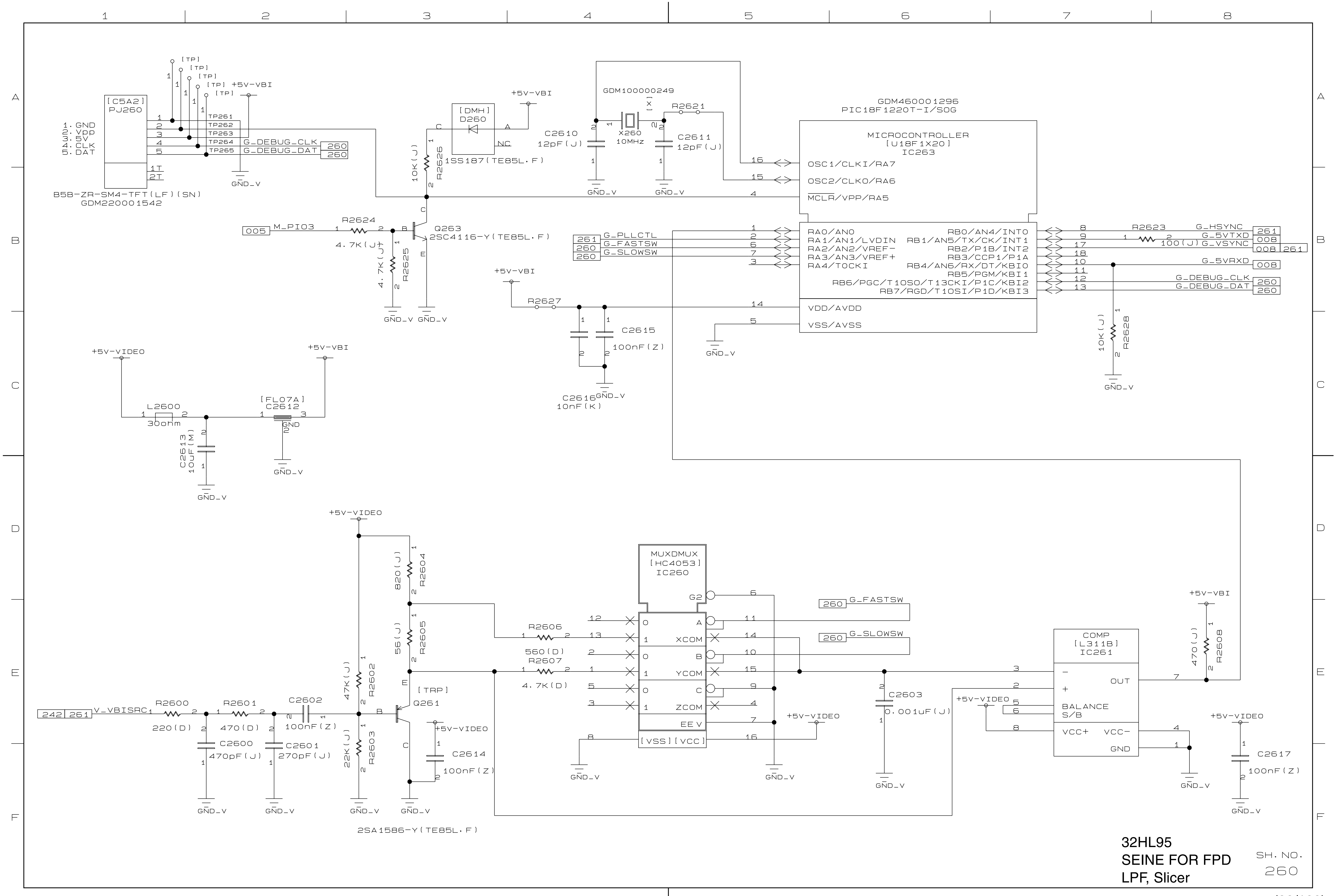


3.3V
+2.5V_ENC
C2572 10nF(K)
C2571 10nF(K)
C2570 10nF(K)
C2561 10nF(K)
C2562 10nF(K)
C2563 10nF(K)
C2564
C2565
C2566
10nF(K)
C2567 10nF(K)
C2568 10nF(K)
C2569 10nF(K)
IC255
GND
GDM460001099
UPD61052GD-LML-A
uPD61052 4/4
[U61052]
IC255
[Power/Ground]
VDD3
(I/O 3.3V)
VDD2
(CORE 2.5V)
PVDD2
(PLL 2.5V)
PGND
GND
FL258
C2584 10uF(M)
W250
C2583 100nF(Z)
C2582 10nF(K)
C2577 10nF(K)
C2578 10nF(K)
C2575 10nF(K)
C2576 10nF(K)
IC250
C2587 100nF(Z)
UREG
[LBAXXFP]
IC256
[VCC]
OUT
[GND]
BA25BC0FP-E2
470nF(K) C2579
100nF(Z) C2581
47uF(M) C2580
[CP]

In case of Simple model.
all components are not mounted.

32HL95
SEINE FOR FPD
MPEG Enc. (POWER)

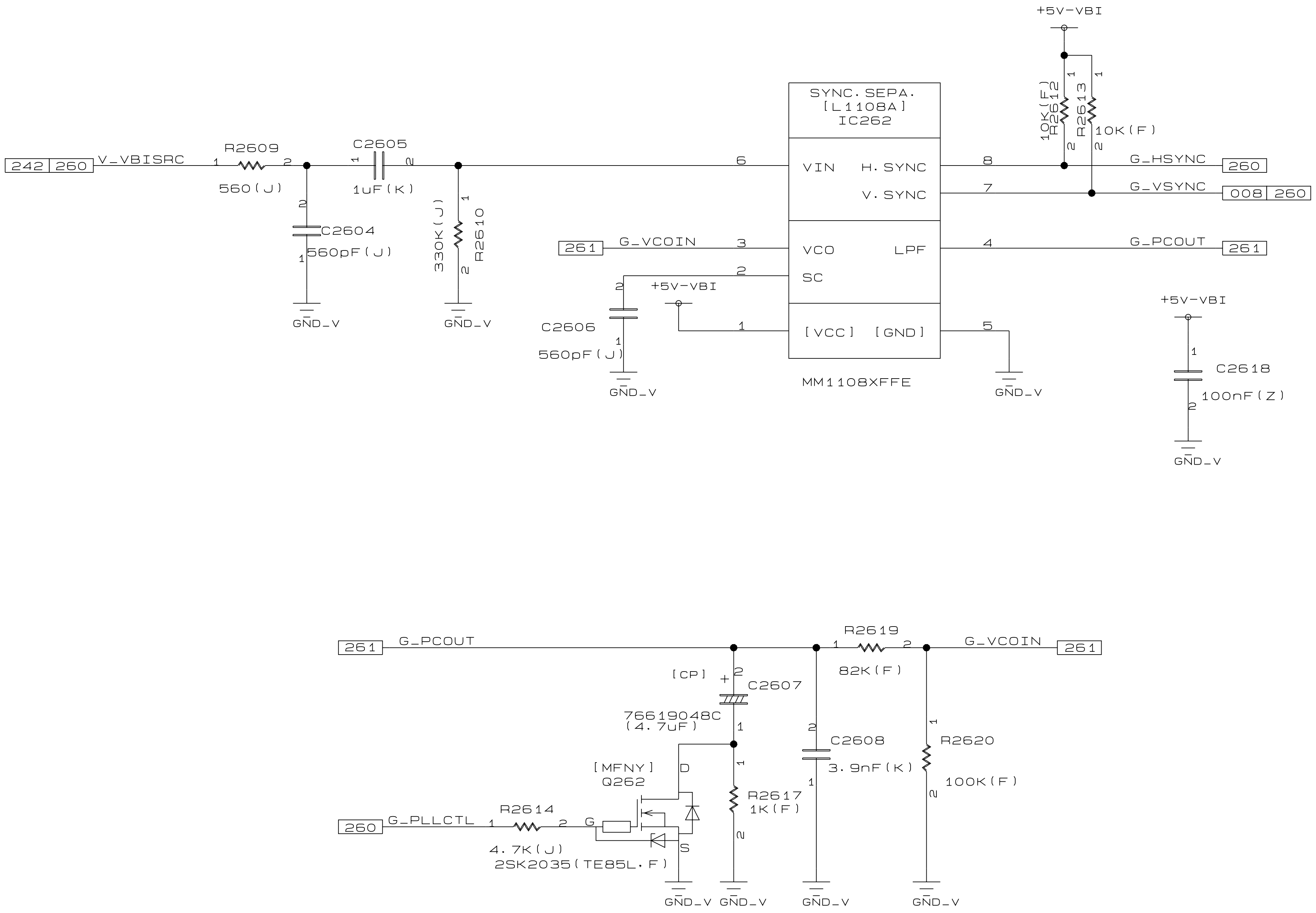
SH. NO.
253



[C5A2]
PJ260
1. GND
2. VPP
3. 5V
4. CLK
5. DAT
B5B-ZR-SM4-TFT(LF)(SN)
GDM220001542
TP261
TP262
TP263
TP264
TP265
[TP]
+5V-VBI
G_DEBUG_CLK
G_DEBUG_DAT
260
GND_V
[DMH]
D260
1SS187(TE85L.F)
NC
10K(J)
R2626
005
M_PIO3
R2624
4.7K(J)
R2625
Q263
2SC4116-Y(TE85L.F)
GDM100000249
X260
10MHz
R2621
C2610
12pF(J)
C2611
12pF(J)
GDM460001296
PIC18F1220T-I/SOG
MICROCONTROLLER
[U18F1X20]
IC263
OSC1/CLKI/RA7
OSC2/CLKO/RA6
MCLR/VPP/RA5
RA0/AN0
RA1/AN1/LVDIN
RA2/AN2/VREF-
RA3/AN3/VREF+
RA4/TOCKI
RB0/AN4/INT0
RB1/AN5/TX/CK/INT1
RB2/P1B/INT2
RB3/CCP1/P1A
RB4/AN6/RX/DT/KBI0
RB5/PGM/KBI1
RB6/PGC/T1OSO/T13CKI/P1C/KBI2
RB7/PGD/T1OSI/P1D/KBI3
VDD/AVDD
VSS/AVSS
G_PLLCTL
G_FASTSW
G_SLOWSW
261
R2623
100(J)
G_HSYNC
G_5VTXD
G_VSYNC
G_5VRXD
008
R2628
10K(J)
R2627
C2615
100nF(Z)
C2616
10nF(K)
+5V-VIDEO
L2600
30ohm
[FL07A]
C2612
GND
C2613
10UF(M)
R2604
820(J)
R2605
56(J)
R2602
47K(J)
R2603
22K(J)
[TRP]
Q261
2SA1586-Y(TE85L.F)
C2614
100nF(Z)
242
V_VBISRC
R2600
220(D)
R2601
470(D)
C2602
100nF(Z)
C2600
470pF(J)
C2601
270pF(J)
R2606
560(D)
R2607
4.7K(D)
MUXDMUX
[HC4053]
IC260
G2
A
XCOM
B
YCOM
C
ZCOM
EE V
[VSS][VCC]
C2603
0.001uF(J)
COMP
[L311B]
IC261
OUT
BALANCE
S/B
VCC+
VCC-
R2608
470(J)
C2617
100nF(Z)

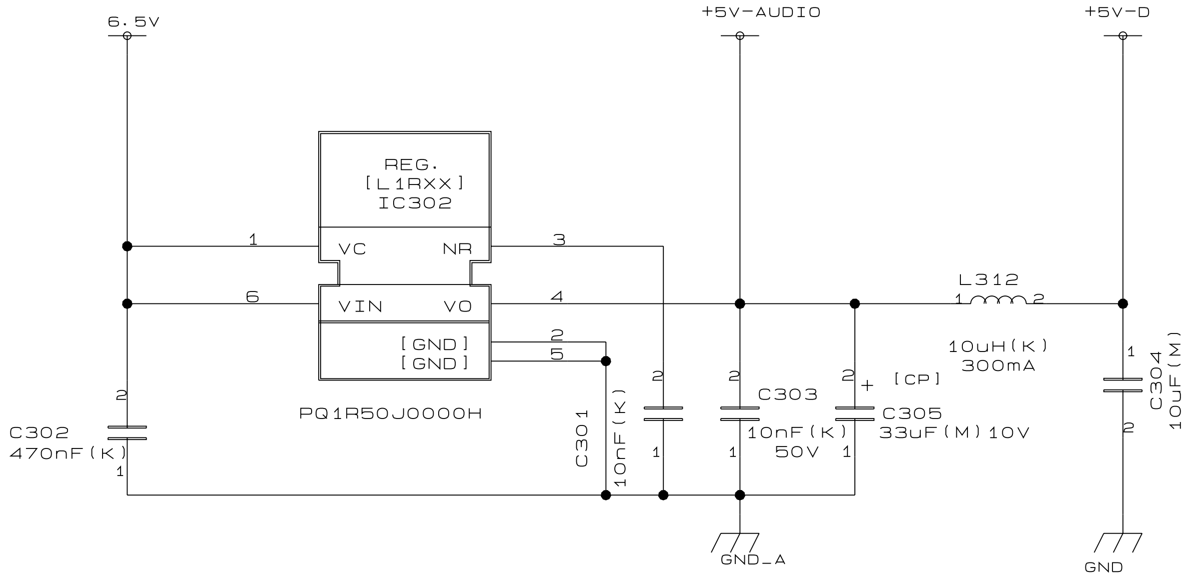
32HL95
SEINE FOR FPD
LPF, Slicer

SH. NO.
260


+5V-VBI
SYNC.SEPA.
[L1108A]
IC262
10K(F)
R2612
R2613
10K(F)
242
260
V_VBISRC
R2609
560(J)
C2605
1uF(K)
C2604
560pF(J)
330K(J)
R2610
GND_V
VIN
H.SYNC
V.SYNC
G_HSYNC
260
G_VSYNC
008
260
261
G_VCOIN
VCO
SC
LPF
G_PCOUT
261
+5V-VBI
C2606
560pF(J)
[VCC]
[GND]
MM1108XFFE
C2618
100nF(Z)
261
G_PCOUT
R2619
82K(F)
G_VCOIN
261
[CP]
C2607
76619048C
(4.7uF)
C2608
3.9nF(K)
R2620
100K(F)
[MFNY]
Q262
R2617
1K(F)
260
G_PLLCTL
R2614
4.7K(J)
2SK2035(TE85L.F)
D
G
S

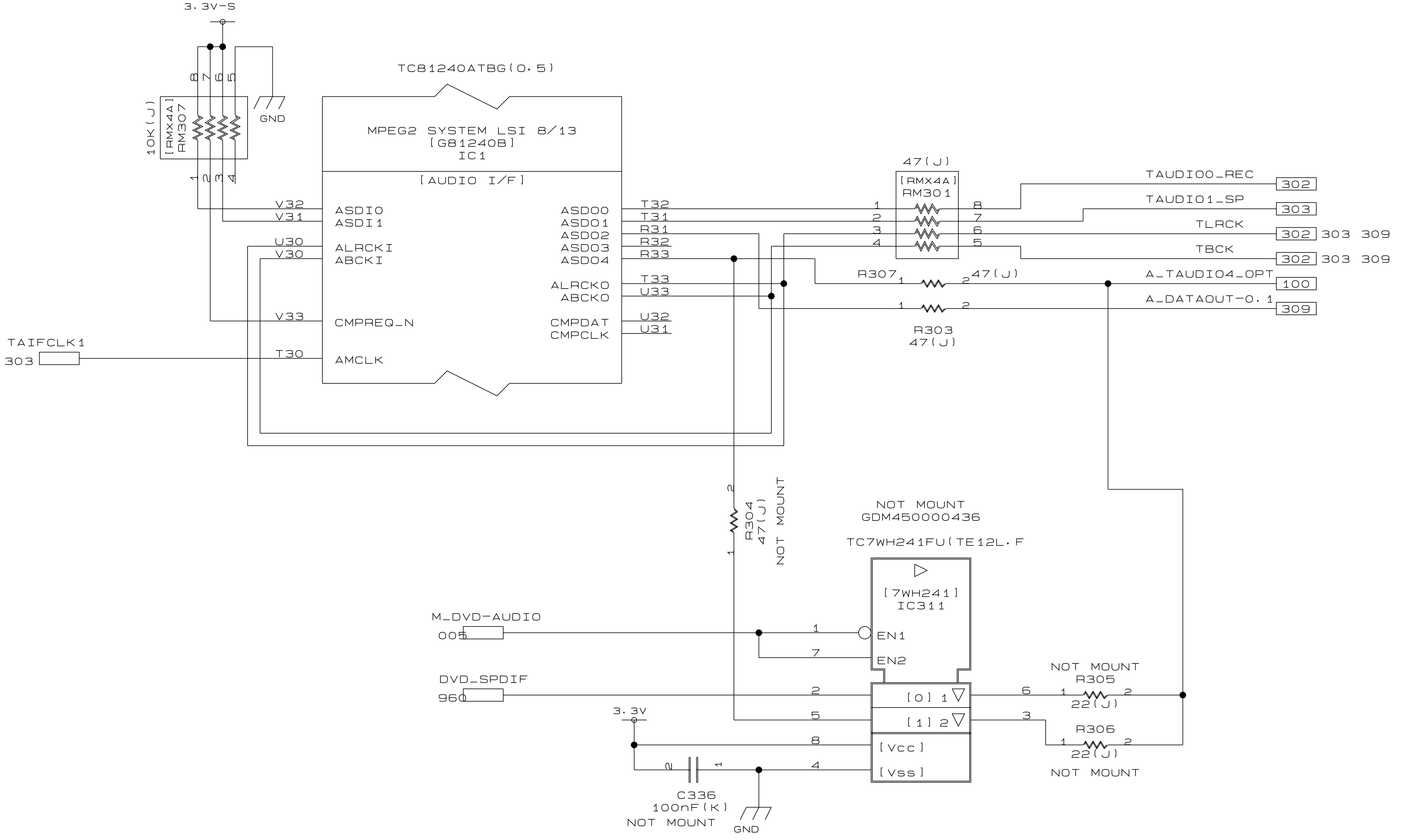
32HL95
SEINE FOR FPD
H/V Sync Sep.

SH. NO.
261


6.5V
+5V-AUDIO
+5V-D
REG.
[L1RXX]
IC302
1
VC
NR
3
6
VIN
VO
4
[GND]
[GND]
2
5
PQ1R50J0000H
C302
470nF(K)
2
1
C301
10nF(K)
2
1
2
1
C303
10nF(K)
50V
2
+
[CP]
C305
33uF(M)10V
1
L312
1
2
10uH(K)
300mA
C304
10uF(M)
1
2
GND_A
GND

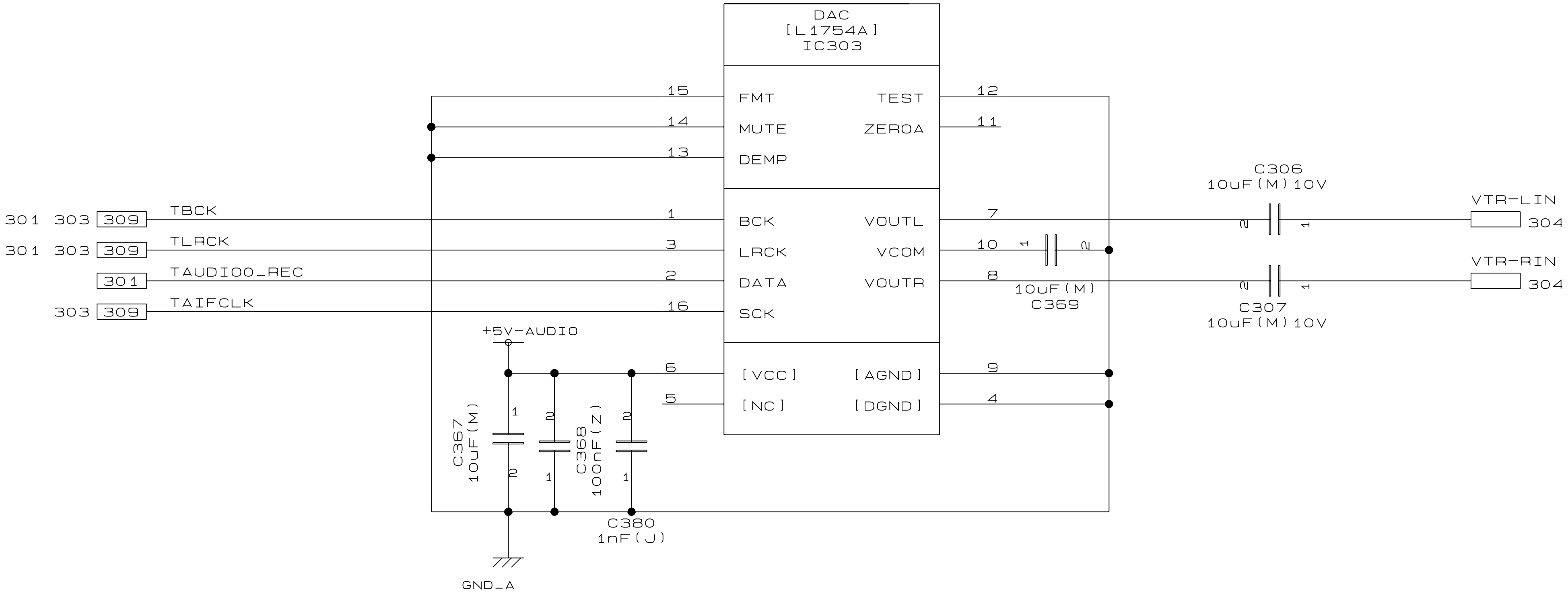
32HL95
SEINE FOR FPD
AUDIO POWER

SH. NO.
300


3.3V-S
GND
10K(J)
[RMX4A]
RM307
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 8/13
[G81240B]
IC1
[AUDIO I/F]
V32
V31
U30
V30
V33
T30
ASDI0
ASDI1
ALRCKI
ABCKI
CMPREQ_N
AMCLK
ASDO0
ASDO1
ASDO2
ASDO3
ASDO4
ALRCKO
ABCKO
CMPDAT
CMPCLK
T32
T31
R31
R32
R33
T33
U33
U32
U31
TAIFCLK1
303
47(J)
[RMX4A]
RM301
R307
47(J)
R303
47(J)
TAUDIO0_REC
302
TAUDIO1_SP
303
TLRCK
302 303 309
TBCK
302 303 309
A_TAUDIO4_OPT
100
A_DATAOUT-0.1
309
R304
47(J)
NOT MOUNT
NOT MOUNT
GDM450000436
TC7WH241FU(TE12L.F
[7WH241]
IC311
EN1
EN2
[0] 1
[1] 2
[Vcc]
[Vss]
M_DVD-AUDIO
005
DVD_SPDIF
960
3.3V
C336
100nF(K)
NOT MOUNT
GND
NOT MOUNT
R305
22(J)
R306
22(J)
NOT MOUNT

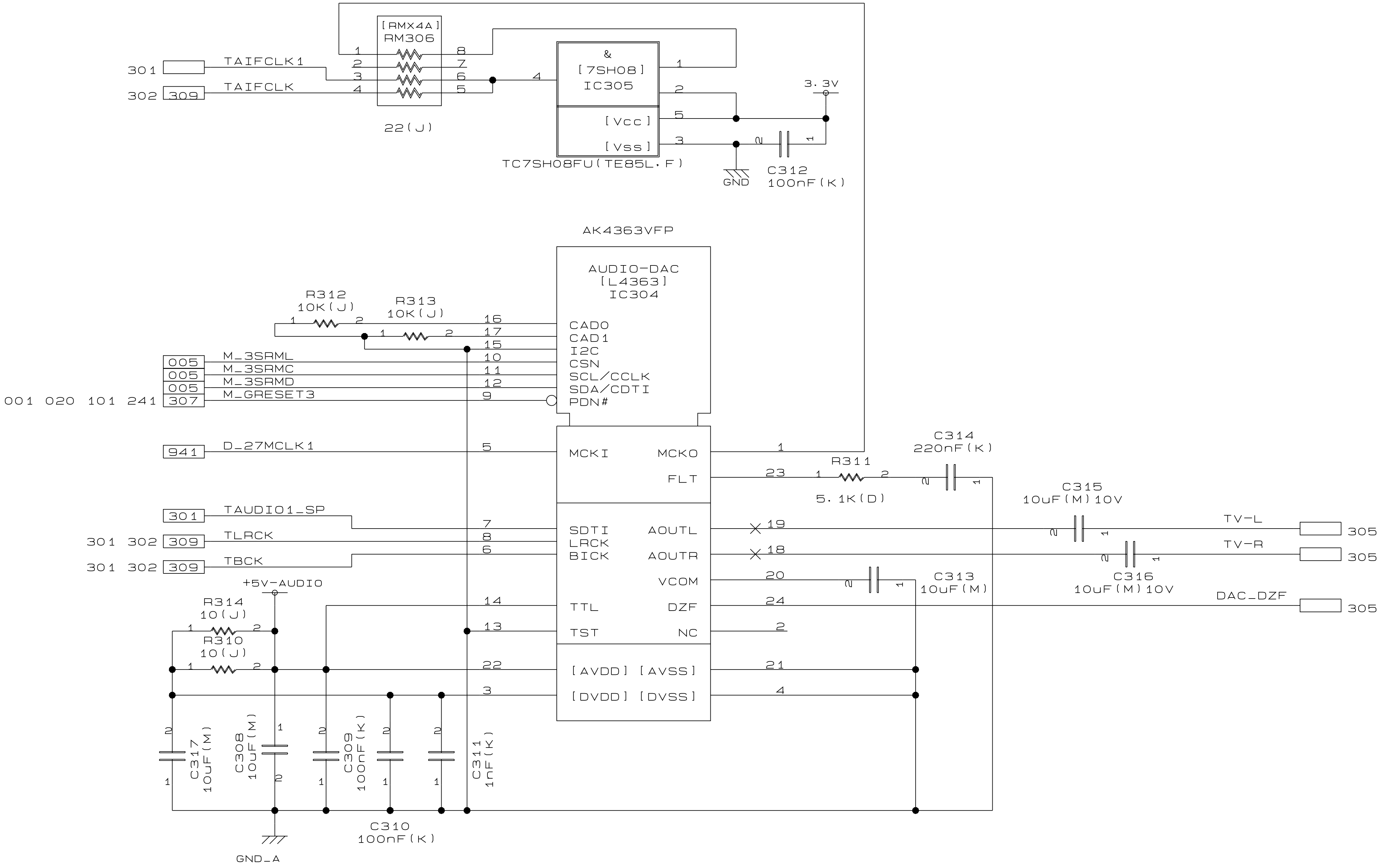
32HL95
SEINE FOR FPD
SEINE AUDIO I/F

SH. NO.
301


DAC
[L1754A]
IC303
15 FMT
14 MUTE
13 DEMP
1 BCK
3 LRCK
2 DATA
16 SCK
6 [VCC]
5 [NC]
TEST 12
ZEROA 11
VOUTL 7
VCOM 10
VOUTR 8
[AGND] 9
[DGND] 4
301 303 309 TBCK
301 303 309 TLRCK
301 TAUDIO0_REC
303 309 TAIFCLK
+5V-AUDIO
C367
10uF(M)
C368
100nF(Z)
C380
1nF(J)
GND_A
C306
10uF(M)10V
C369
10uF(M)
C307
10uF(M)10V
VTR-LIN 304
VTR-RIN 304

32HL95
SEINE FOR FPD
AUDIO DAC

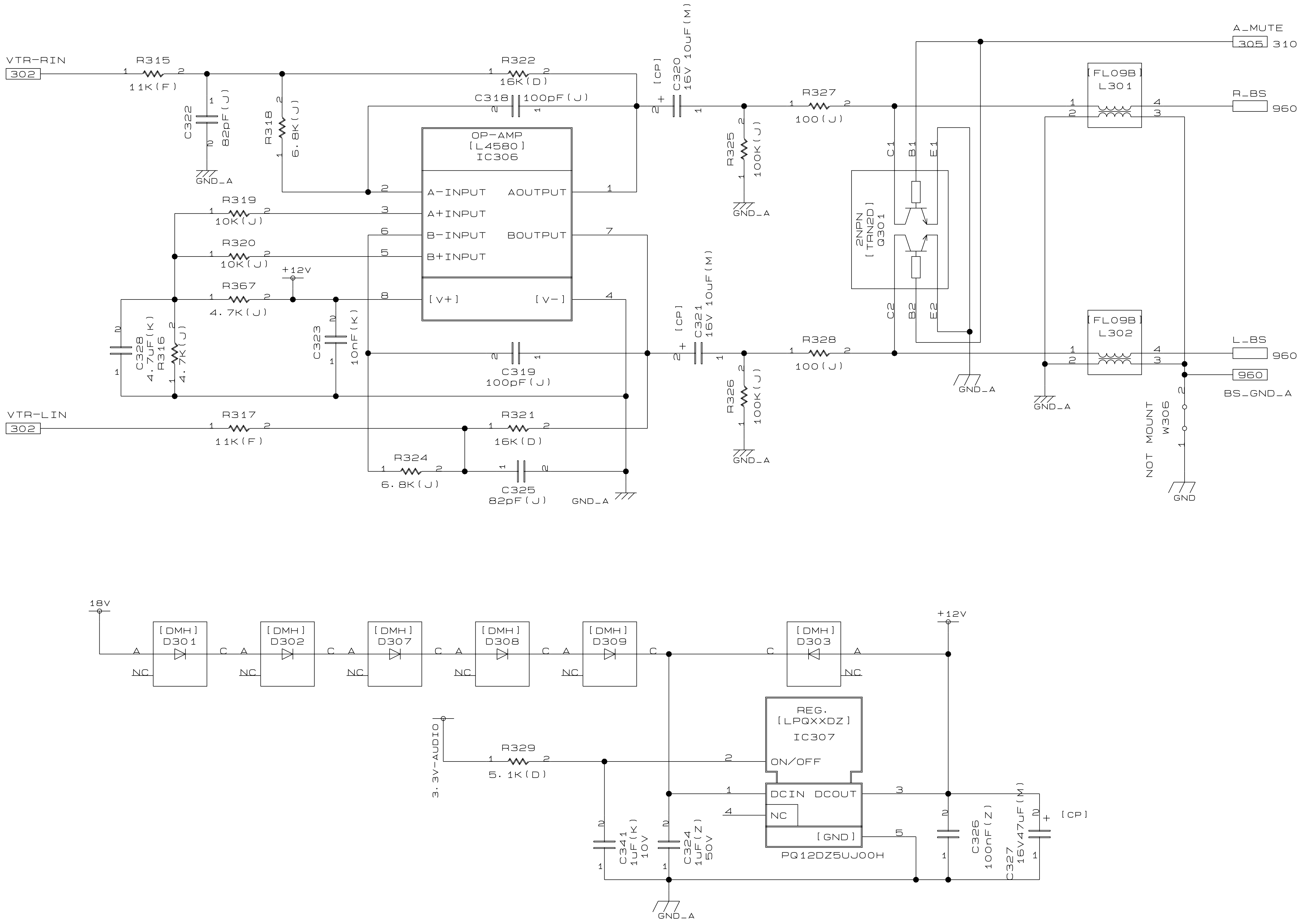
SH. NO.
302



[RMX4A]
RM306
22(J)
301
302 309
TAIFCLK1
TAIFCLK
&
[7SH08]
IC305
[Vcc]
[Vss]
TC7SH08FU(TE85L.F)
3.3V
GND
C312
100nF(K)
AK4363VFP
AUDIO-DAC
[L4363]
IC304
R312
10K(J)
R313
10K(J)
CAD0
CAD1
I2C
CSN
SCL/CCLK
SDA/CDTI
PDN#
005
M_3SRML
M_3SRMC
M_3SRMD
001 020 101 241 307
M_GRESET3
941
D_27MCLK1
MCKI
MCKO
FLT
R311
5.1K(D)
C314
220nF(K)
C315
10uF(M)10V
C316
10uF(M)10V
C313
10uF(M)
301
TAUDIO1_SP
301 302 309
TLRCK
TBCK
SDTI
LRCK
BICK
AOUTL
AOUTR
VCOM
DZF
NC
TTL
TST
[AVDD] [AVSS]
[DVDD] [DVSS]
TV-L
TV-R
DAC_DZF
305
+5V-AUDIO
R314
10(J)
R310
10(J)
C317
10uF(M)
C308
10uF(M)
C309
100nF(K)
C310
100nF(K)
C311
1nF(K)
GND_A

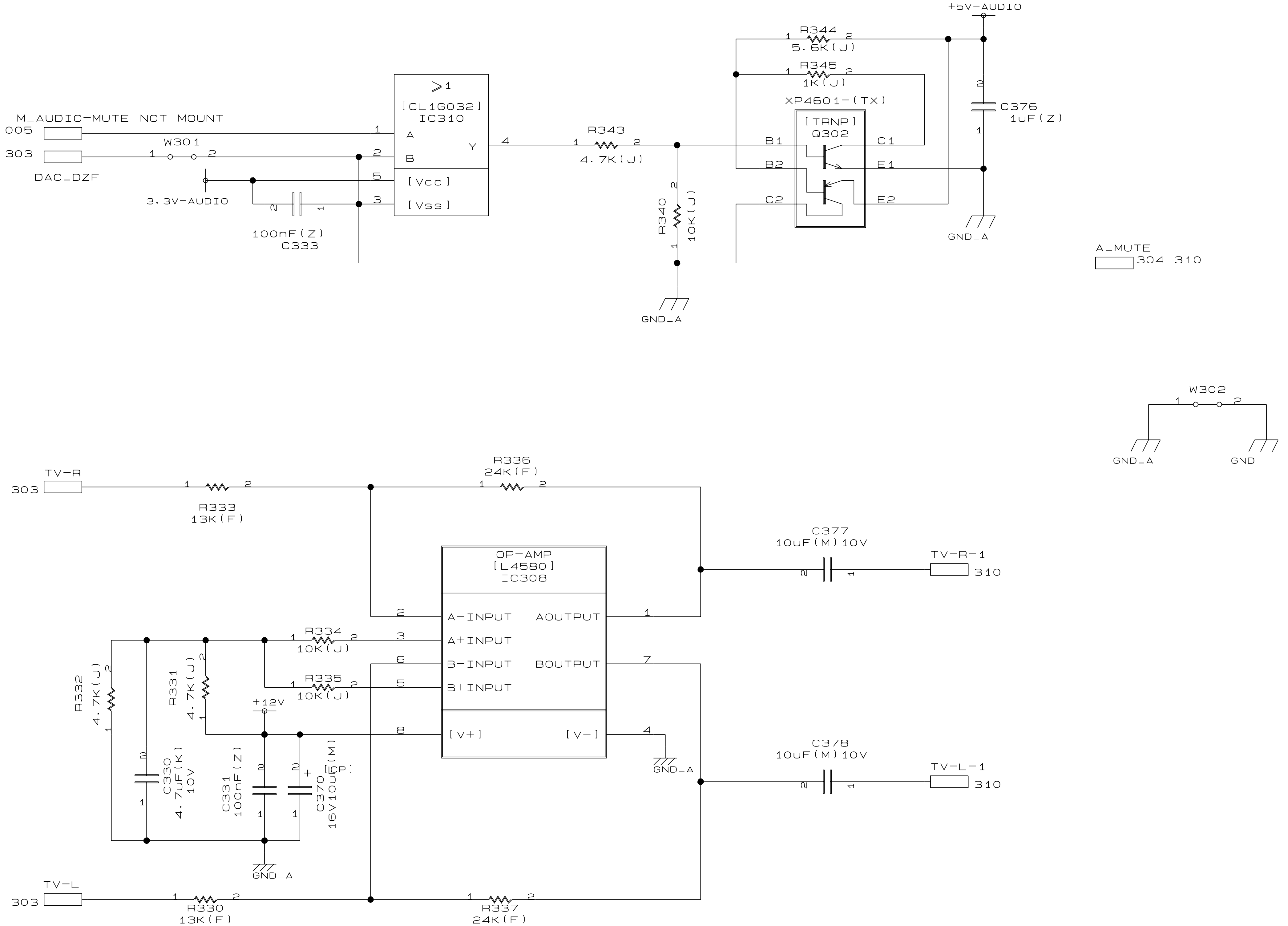
32HL95
SEINE FOR FPD
AUDIO PLL/DAC

SH. NO.
303


VTR-RIN
302
R315
11K(F)
C322
82pF(J)
GND_A
R318
6.8K(J)
R322
16K(D)
C318
100pF(J)
[CP]
C320
16V 10uF(M)
R327
100(J)
R325
100K(J)
A_MUTE
305
310
R_BS
960
[FL09B]
L301
OP-AMP
[L4580]
IC306
A-INPUT
AOUTPUT
A+INPUT
B-INPUT
BOUTPUT
B+INPUT
[V+]
[V-]
R319
10K(J)
R320
10K(J)
R367
4.7K(J)
+12V
C328
4.7uF(K)
R316
4.7K(J)
C323
10nF(K)
C319
100pF(J)
C321
16V 10uF(M)
R328
100(J)
R326
100K(J)
2NPN
[TRN2D]
Q301
C1
B1
E1
C2
B2
E2
[FL09B]
L302
L_BS
960
960
BS_GND_A
NOT MOUNT
W306
GND
VTR-LIN
302
R317
11K(F)
R321
16K(D)
R324
6.8K(J)
C325
82pF(J)
18V
[DMH]
D301
[DMH]
D302
[DMH]
D307
[DMH]
D308
[DMH]
D309
[DMH]
D303
A
C
NC
+12V
REG.
[LPQXXDZ]
IC307
ON/OFF
DCIN
DCOUT
NC
[GND]
PQ12DZ5UJ00H
3.3V-AUDIO
R329
5.1K(D)
C341
1uF(K)
10V
C324
1uF(Z)
50V
C326
100nF(Z)
C327
16V47uF(M)
[CP]

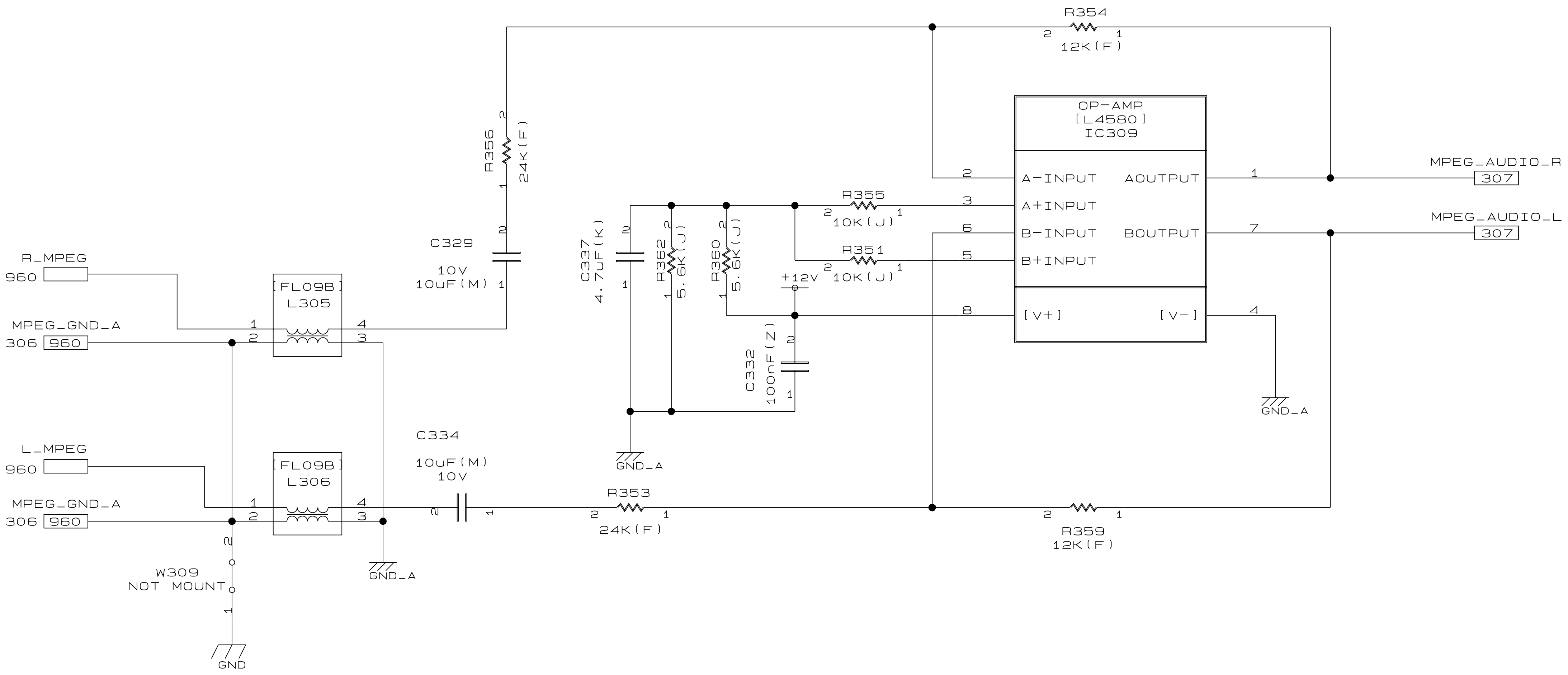
32HL95
SEINE FOR FPD
AUDIO VTR OUT

SH. NO.
304


M_AUDIO-MUTE NOT MOUNT
005
303
DAC_DZF
W301
3.3V-AUDIO
100nF(Z)
C333
[CL1G032]
IC310
A
B
Y
[Vcc]
[Vss]
R343
4.7K(J)
R340
10K(J)
GND_A
+5V-AUDIO
R344
5.6K(J)
R345
1K(J)
XP4601-(TX)
[TRNP]
Q302
B1
B2
C2
C1
E1
E2
C376
1uF(Z)
A_MUTE
304 310
W302
GND_A
GND
TV-R
303
R333
13K(F)
R336
24K(F)
OP-AMP
[L4580]
IC308
A-INPUT
A+INPUT
B-INPUT
B+INPUT
AOUTPUT
BOUTPUT
[V+]
[V-]
C377
10uF(M)10V
TV-R-1
310
C378
10uF(M)10V
TV-L-1
310
R334
10K(J)
R335
10K(J)
R332
4.7K(J)
R331
4.7K(J)
+12V
C330
4.7uF(K)
10V
C331
100nF(Z)
C370
16V10uF(M)
[P]
GND_A
TV-L
303
R330
13K(F)
R337
24K(F)

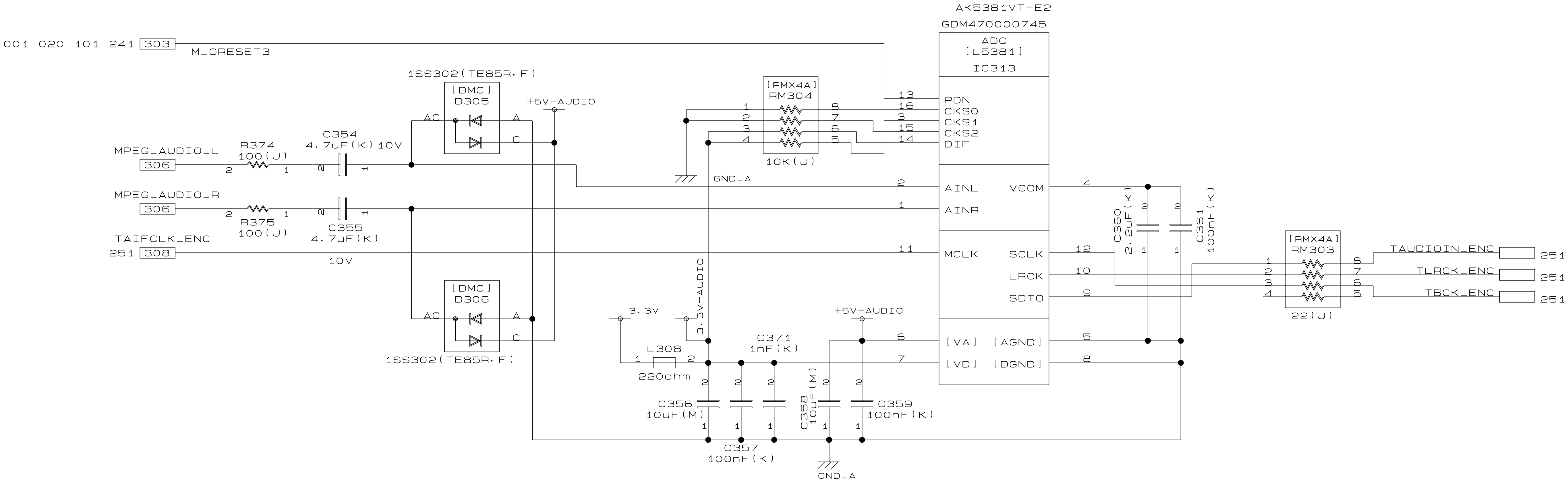
32HL95
SEINE FOR FPD
AUDIO SP OUT

SH. NO.
305


R354
2
1
12K(F)
OP-AMP
[L4580]
IC309
R356
24K(F)
2
1
2
A-INPUT
AOUTPUT
1
MPEG_AUDIO_R
307
3
A+INPUT
R355
10K(J)
6
B-INPUT
BOUTPUT
7
MPEG_AUDIO_L
307
5
B+INPUT
R351
10K(J)
8
[V+]
[V-]
4
GND_A
C329
10V
10uF(M)
C337
4.7uF(K)
R362
5.6K(J)
R360
5.6K(J)
+12V
C332
100nF(Z)
GND_A
R_MPEG
960
[FL09B]
L305
MPEG_GND_A
306
960
1
2
4
3
L_MPEG
960
[FL09B]
L306
MPEG_GND_A
306
960
C334
10uF(M)
10V
R353
24K(F)
R359
12K(F)
GND_A
W309
NOT MOUNT
GND

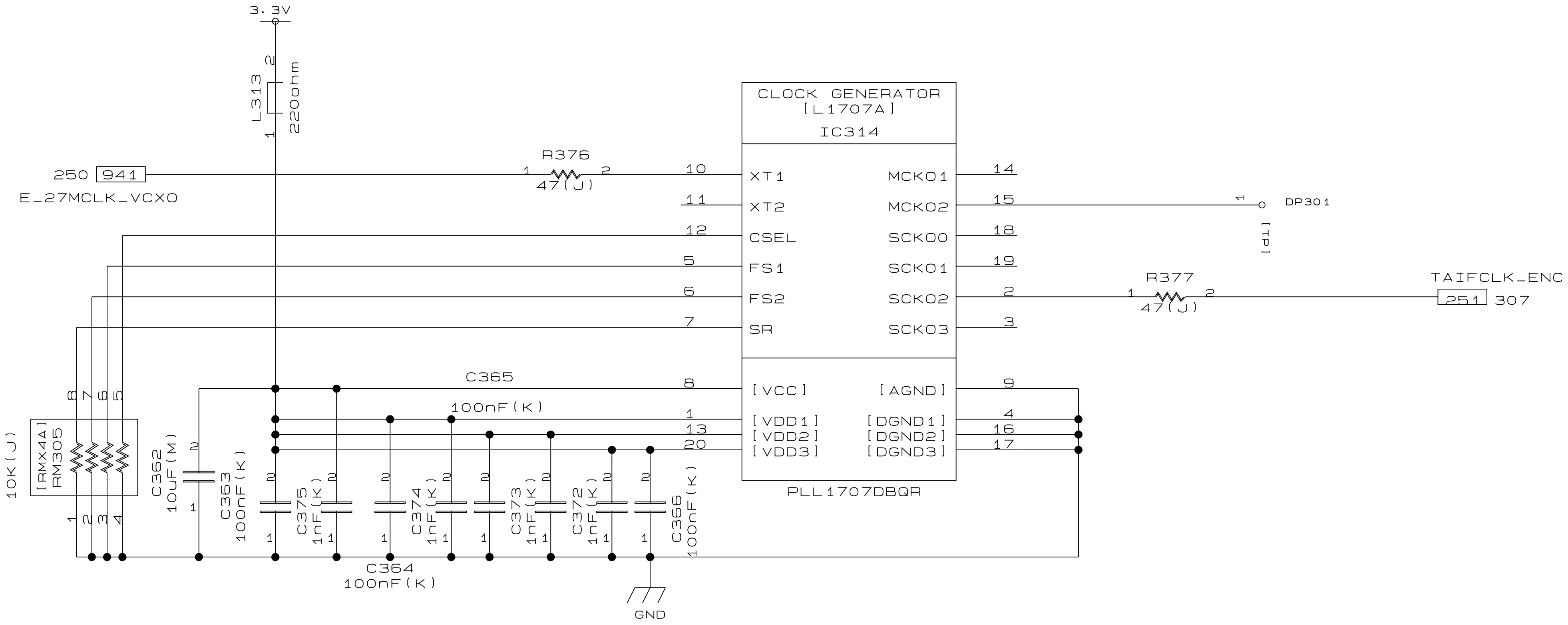
32HL95
SEINE FOR FPD
MPEG2 AUDIO TV IN

SH. NO.
306


AK5381VT-E2
GDM470000745
ADC
[L5381]
IC313
001 020 101 241
303
M_GRESET3
1SS302(TE85R.F)
[DMC]
D305
+5V-AUDIO
AC
A
C
[RMX4A]
RM304
10K(J)
13
16
3
15
14
PDN
CKS0
CKS1
CKS2
DIF
MPEG_AUDIO_L
306
R374
100(J)
C354
4.7uF(K) 10V
GND_A
2
AINL
VCOM
4
MPEG_AUDIO_R
306
R375
100(J)
C355
4.7uF(K)
1
AINR
C360
2.2uF(K)
C361
100nF(K)
TAIFCLK_ENC
251
308
10V
11
MCLK
SCLK
12
LRCK
10
SDTO
9
[RMX4A]
RM303
22(J)
TAUDIOIN_ENC
251
TLRCK_ENC
251
TBCK_ENC
251
[DMC]
D306
1SS302(TE85R.F)
3.3V
3.3V-AUDIO
+5V-AUDIO
L308
220ohm
C371
1nF(K)
6
7
[VA]
[VD]
[AGND]
[DGND]
5
8
C356
10uF(M)
C357
100nF(K)
C358
10uF(M)
C359
100nF(K)
GND_A

32HL95
SEINE FOR FPD
MPEG2 AUDIO ADC

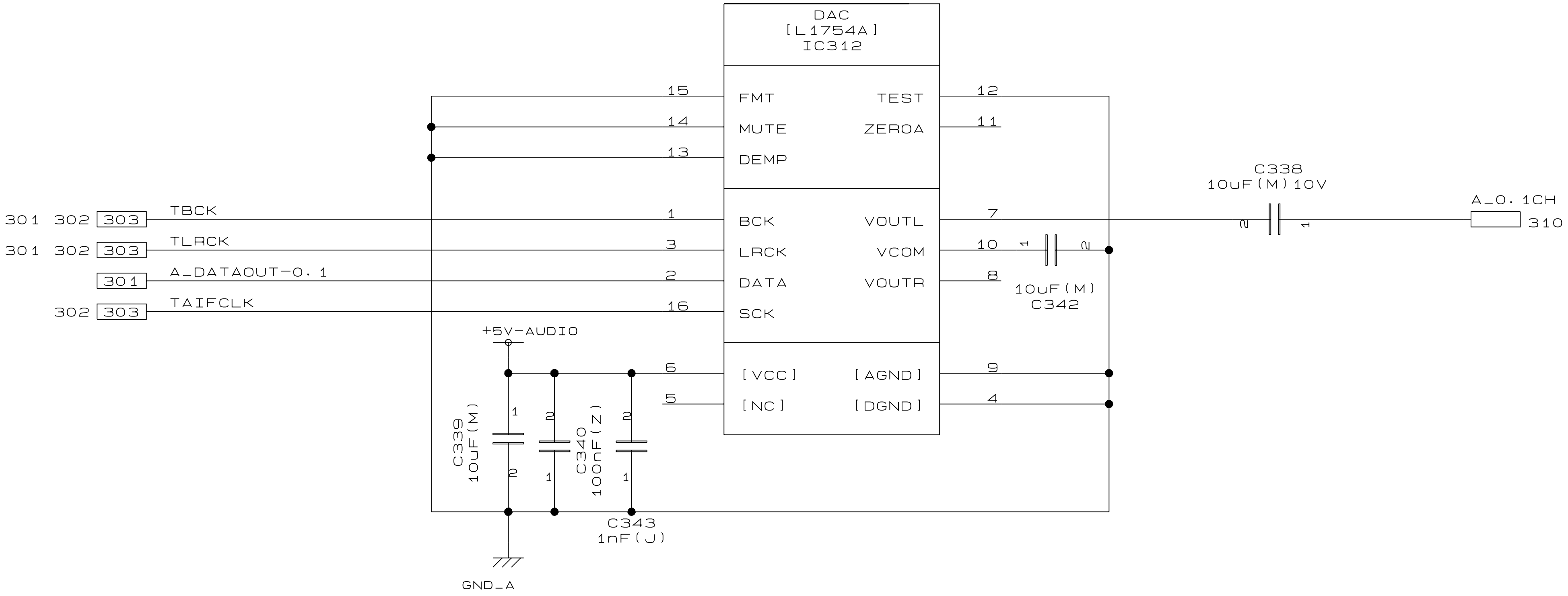
SH. NO.
307



3.3V
L313
220ohm
250
941
E_27MCLK_VCXO
R376
47(J)
CLOCK GENERATOR
[L1707A]
IC314
10 XT1
11 XT2
12 CSEL
5 FS1
6 FS2
7 SR
MCKO1 14
MCKO2 15
SCKO0 18
SCKO1 19
SCKO2 2
SCKO3 3
8 [VCC]
1 [VDD1]
13 [VDD2]
20 [VDD3]
[AGND] 9
[DGND1] 4
[DGND2] 16
[DGND3] 17
PLL1707DBQR
DP301
[TP]
R377
47(J)
TAIFCLK_ENC
251
307
C365
100nF(K)
RM305
[RMx4A]
10K(J)
C362
10uF(M)
C363
100nF(K)
C375
1nF(K)
C364
100nF(K)
C374
1nF(K)
C373
1nF(K)
C372
1nF(K)
C366
100nF(K)
GND

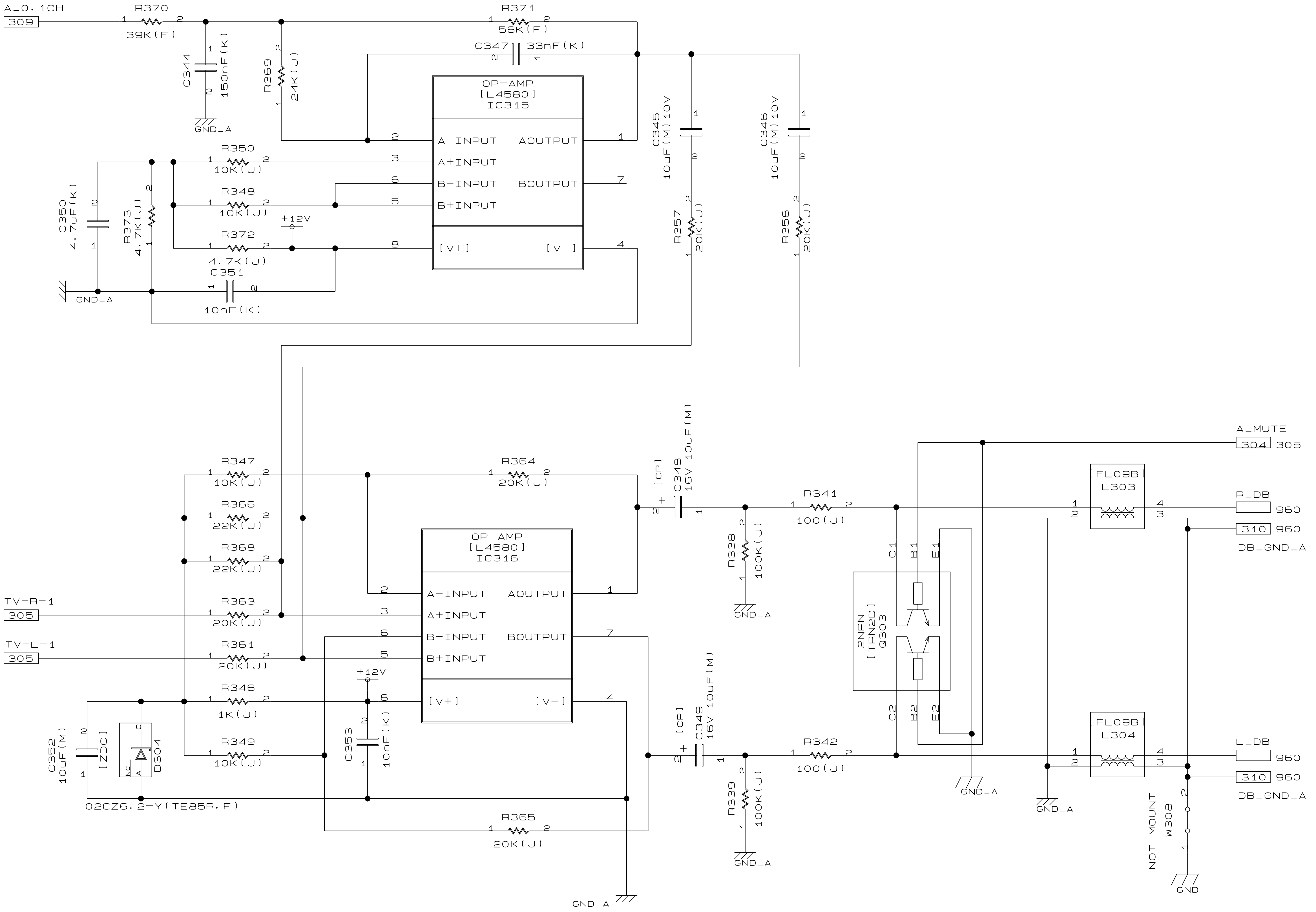
32HL95
SEINE FOR FPD
MPEG2 AUDIO PLL

SH. NO.
308


DAC
[L1754A]
IC312
15 FMT
14 MUTE
13 DEMP
1 BCK
3 LRCK
2 DATA
16 SCK
6 [VCC]
5 [NC]
TEST 12
ZEROA 11
VOUTL 7
VCOM 10
VOUTR 8
[AGND] 9
[DGND] 4
301 302 303 TBCK
301 302 303 TLRCK
301 A_DATAOUT-0.1
302 303 TAIFCLK
+5V-AUDIO
C339
10uF(M)
C340
100nF(Z)
C343
1nF(J)
GND_A
C338
10uF(M)10V
10uF(M)
C342
A_0.1CH
310

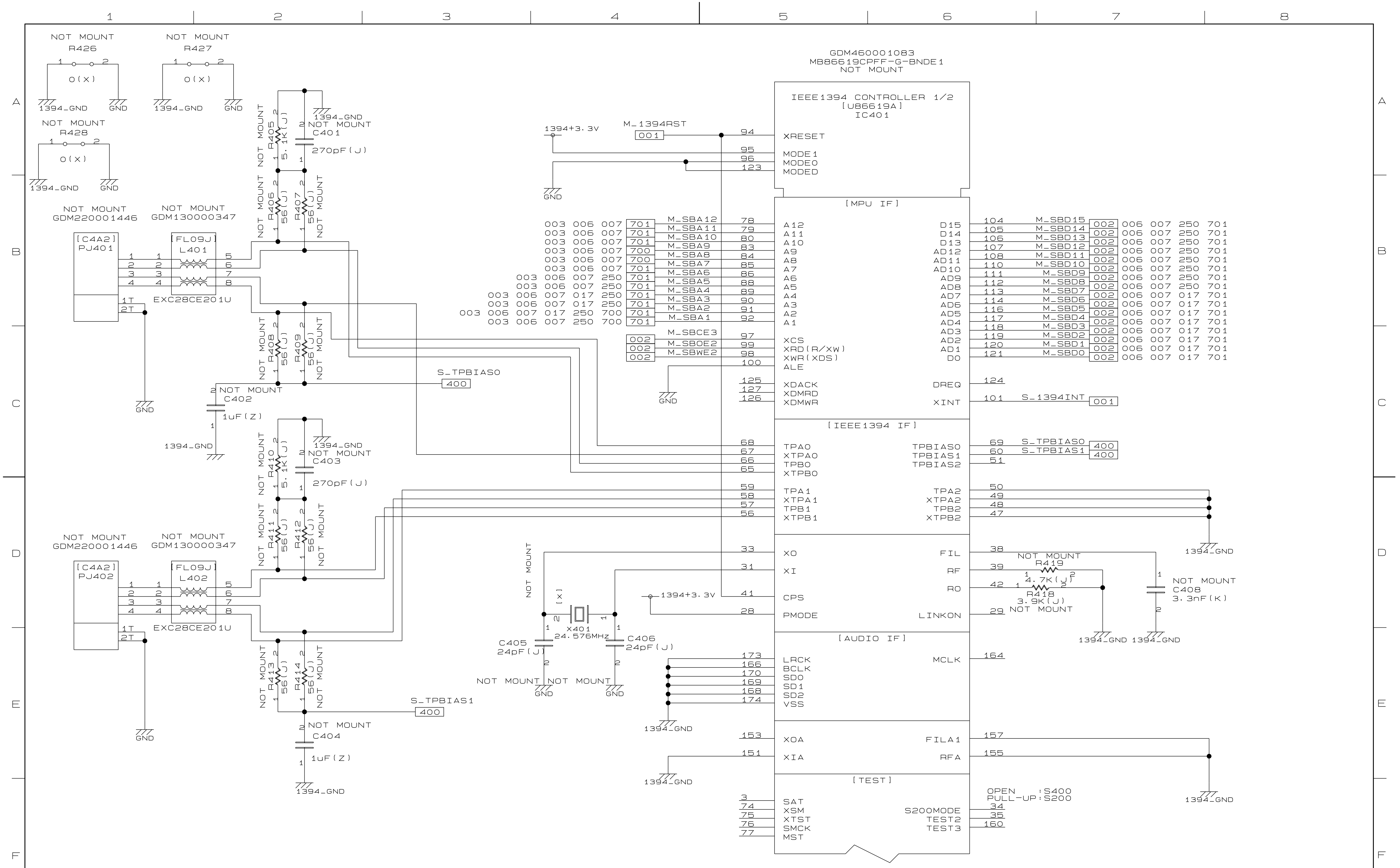
32HL95
SEINE FOR FPD
AUDIO DAC 0.1CH

SH. NO.
309


A_O.1CH
309
R370
39K(F)
C344
150nF(K)
GND_A
R369
24K(J)
R371
56K(F)
C347
33nF(K)
OP-AMP
[L4580]
IC315
A-INPUT
AOUTPUT
A+INPUT
B-INPUT
BOUTPUT
B+INPUT
[V+]
[V-]
C345
10uF(M)10V
C346
10uF(M)10V
R357
20K(J)
R358
20K(J)
R350
10K(J)
R348
10K(J)
+12V
R372
4.7K(J)
C350
4.7uF(K)
R373
4.7K(J)
C351
10nF(K)
GND_A
R347
10K(J)
R364
20K(J)
R366
22K(J)
R368
22K(J)
OP-AMP
[L4580]
IC316
TV-R-1
305
R363
20K(J)
TV-L-1
305
R361
20K(J)
R346
1K(J)
+12V
R349
10K(J)
C352
10uF(M)
[ZDC]
D304
02CZ6.2-Y(TE85R.F)
C353
10nF(K)
R365
20K(J)
GND_A
[CP]
C348
16V 10uF(M)
[CP]
C349
16V 10uF(M)
R341
100(J)
R342
100(J)
R338
100K(J)
R339
100K(J)
GND_A
2NPN
[TRN2D]
Q303
C1
B1
E1
C2
B2
E2
GND_A
A_MUTE
304
305
[FL09B]
L303
[FL09B]
L304
R_DB
960
310
960
DB_GND_A
L_DB
960
310
960
DB_GND_A
GND_A
NOT MOUNT
W308
GND

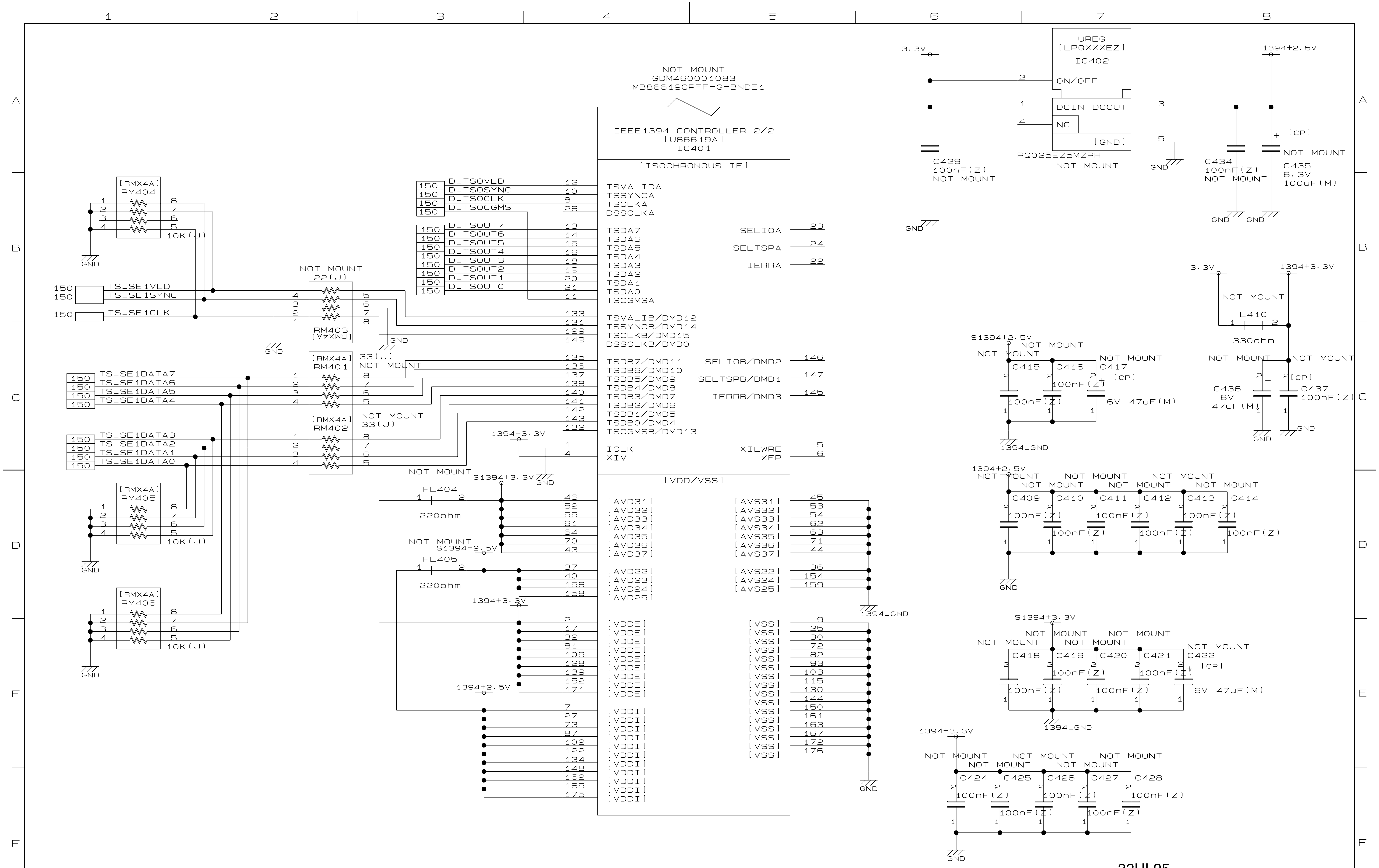
32HL95
SEINE FOR FPD
AUDIO VTR OUT

SH. NO.
310


NOT MOUNT R426 0(X)
NOT MOUNT R427 0(X)
NOT MOUNT R428 0(X)
1394_GND
GND
NOT MOUNT R405 5.1K(J)
NOT MOUNT C401 270pF(J)
NOT MOUNT R406 56(J)
R407 56(J) NOT MOUNT
NOT MOUNT GDM220001446
NOT MOUNT GDM130000347
[C4A2] PJ401
[FL09J] L401
EXC28CE201U
NOT MOUNT R408 56(J)
R409 56(J) NOT MOUNT
NOT MOUNT C402 1uF(Z)
S_TPBIAS0 400
NOT MOUNT R410 5.1K(J)
NOT MOUNT C403 270pF(J)
NOT MOUNT R411 56(J)
R412 56(J) NOT MOUNT
[C4A2] PJ402
[FL09J] L402
NOT MOUNT R413 56(J)
R414 56(J) NOT MOUNT
S_TPBIAS1 400
NOT MOUNT C404 1uF(Z)
GDM460001083
MB86619CPFF-G-BNDE1
NOT MOUNT
IEEE1394 CONTROLLER 1/2
[U86619A]
IC401
1394+3.3V
M_1394RST 001
94 XRESET
95 MODE1
96 MODE0
123 MODED
[MPU IF]
003 006 007 701 M_SBA12 78 A12
003 006 007 701 M_SBA11 79 A11
003 006 007 701 M_SBA10 80 A10
003 006 007 700 M_SBA9 83 A9
003 006 007 700 M_SBA8 84 A8
003 006 007 701 M_SBA7 85 A7
003 006 007 250 701 M_SBA6 86 A6
003 006 007 250 701 M_SBA5 88 A5
003 006 007 250 701 M_SBA4 89 A4
003 006 007 017 250 701 M_SBA3 90 A3
003 006 007 017 250 701 M_SBA2 91 A2
003 006 007 017 250 700 701 M_SBA1 92 A1
003 006 007 250 700 701
M_SBCE3 002 97 XCS
002 M_SBOE2 99 XRD(R/XW)
002 M_SBWE2 98 XWR(XDS)
100 ALE
125 XDACK
127 XDMRD
126 XDMWR
D15 104 M_SBD15 002 006 007 250 701
D14 105 M_SBD14 002 006 007 250 701
D13 106 M_SBD13 002 006 007 250 701
AD12 107 M_SBD12 002 006 007 250 701
AD11 108 M_SBD11 002 006 007 250 701
AD10 110 M_SBD10 002 006 007 250 701
AD9 111 M_SBD9 002 006 007 250 701
AD8 112 M_SBD8 002 006 007 250 701
AD7 113 M_SBD7 002 006 007 017 701
AD6 114 M_SBD6 002 006 007 017 701
AD5 116 M_SBD5 002 006 007 017 701
AD4 117 M_SBD4 002 006 007 017 701
AD3 118 M_SBD3 002 006 007 017 701
AD2 119 M_SBD2 002 006 007 017 701
AD1 120 M_SBD1 002 006 007 017 701
D0 121 M_SBD0 002 006 007 017 701
DREQ 124
XINT 101 S_1394INT 001
[IEEE1394 IF]
68 TPA0
67 XTPA0
66 TPB0
65 XTPB0
59 TPA1
58 XTPA1
57 TPB1
56 XTPB1
TPBIAS0 69 S_TPBIAS0 400
TPBIAS1 60 S_TPBIAS1 400
TPBIAS2 51
TPA2 50
XTPA2 49
TPB2 48
XTPB2 47
33 XO
31 XI
41 CPS 1394+3.3V
28 PMODE
FIL 38
RF 39
RO 42
LINKON 29
NOT MOUNT R419 4.7K(J)
R418 3.9K(J) NOT MOUNT
NOT MOUNT C408 3.3nF(K)
NOT MOUNT [X] X401 24.576MHz
C405 24pF(J) NOT MOUNT
C406 24pF(J) NOT MOUNT
[AUDIO IF]
173 LRCK
166 BCLK
170 SD0
169 SD1
168 SD2
174 VSS
MCLK 164
153 XOA
151 XIA
FILA1 157
RFA 155
[TEST]
3 SAT
74 XSM
75 XTST
76 SMCK
77 MST
OPEN :S400
PULL-UP:S200
S200MODE 34
TEST2 35
TEST3 160
1 2 3 4 5 6 7 8
A B C D E F

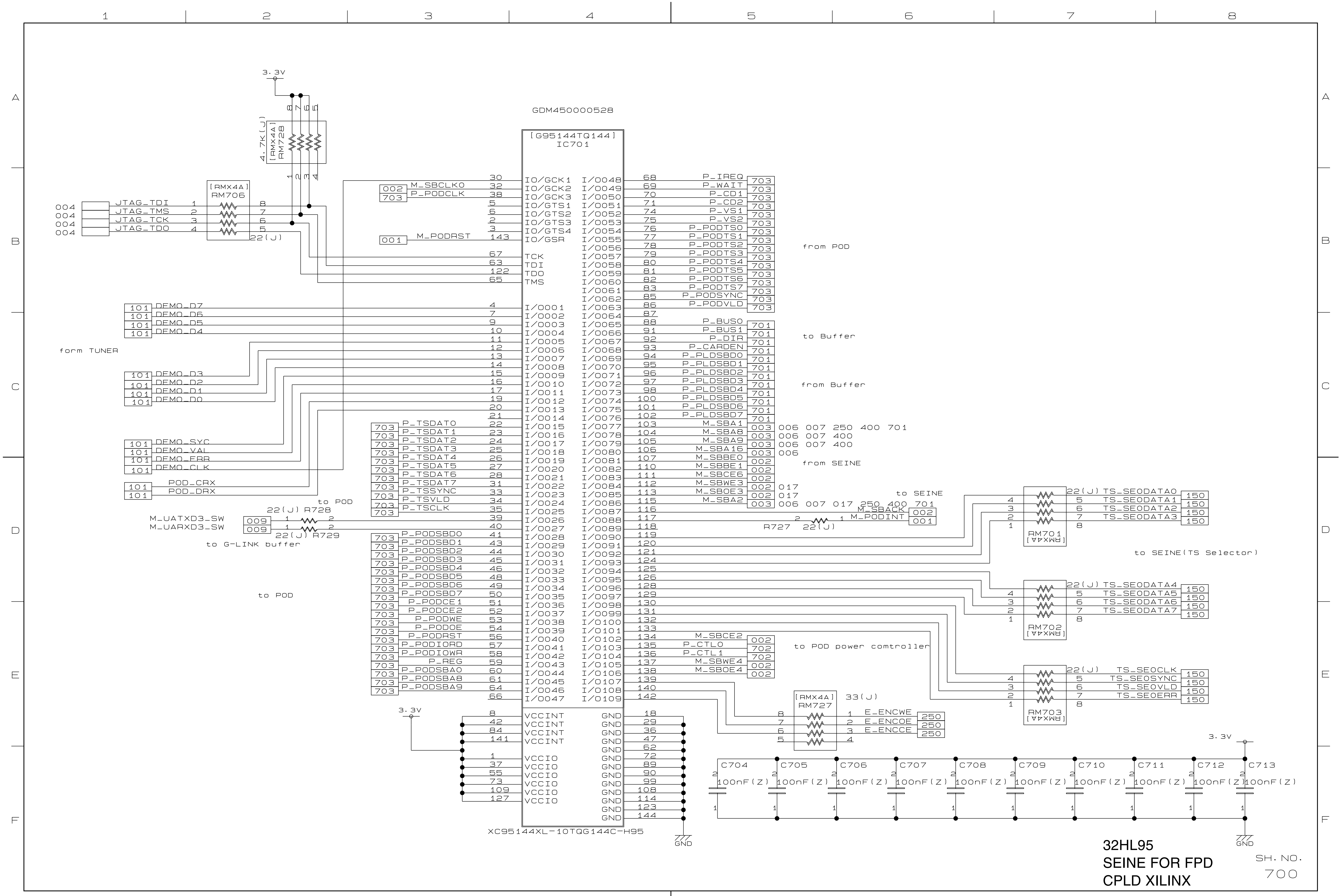
32HL95
SEINE FOR FPD
MB86619

SH. NO.
400


1
2
3
4
5
6
7
8
A
B
C
D
E
F
NOT MOUNT
GDM460001083
MB86619CPFF-G-BNDE1
IEEE1394 CONTROLLER 2/2
[U86619A]
IC401
[ISOCHRONOUS IF]
TSVALIDA
TSSYNCA
TSCLKA
DSSCLKA
TSDA7
TSDA6
TSDA5
TSDA4
TSDA3
TSDA2
TSDA1
TSDA0
TSCGMSA
TSVALIB/DMD12
TSSYNCB/DMD14
TSCLKB/DMD15
DSSCLKB/DMD0
TSDB7/DMD11
TSDB6/DMD10
TSDB5/DMD9
TSDB4/DMD8
TSDB3/DMD7
TSDB2/DMD6
TSDB1/DMD5
TSDB0/DMD4
TSCGMSB/DMD13
ICLK
XIV
SELIOA
SELTSPA
IERRA
SELIOB/DMD2
SELTSPB/DMD1
IERRB/DMD3
XILWRE
XFP
[VDD/VSS]
[AVD31] [AVD32] [AVD33] [AVD34] [AVD35] [AVD36] [AVD37]
[AVD22] [AVD23] [AVD24] [AVD25]
[VDDE]
[VDDI]
[AVS31] [AVS32] [AVS33] [AVS34] [AVS35] [AVS36] [AVS37]
[AVS22] [AVS24] [AVS25]
[VSS]
D_TSOVLD
D_TSOSYNC
D_TSOCLK
D_TSOCGMS
D_TSOUT7
D_TSOUT6
D_TSOUT5
D_TSOUT4
D_TSOUT3
D_TSOUT2
D_TSOUT1
D_TSOUT0
150
TS_SE1VLD
TS_SE1SYNC
TS_SE1CLK
TS_SE1DATA7
TS_SE1DATA6
TS_SE1DATA5
TS_SE1DATA4
TS_SE1DATA3
TS_SE1DATA2
TS_SE1DATA1
TS_SE1DATA0
[RMX4A]
RM404
10K(J)
NOT MOUNT
22(J)
RM403
[RMX4A]
RM401
33(J)
NOT MOUNT
[RMX4A]
RM402
NOT MOUNT
33(J)
[RMX4A]
RM405
10K(J)
[RMX4A]
RM406
10K(J)
GND
1394+3.3V
S1394+3.3V
NOT MOUNT
FL404
220ohm
NOT MOUNT
S1394+2.5V
FL405
220ohm
1394+2.5V
1394_GND
3.3V
UREG
[LPQXXXEZ]
IC402
ON/OFF
DCIN DCOUT
NC
[GND]
PQ025EZ5MZPH
NOT MOUNT
1394+2.5V
C429
100nF(Z)
NOT MOUNT
C434
100nF(Z)
NOT MOUNT
[CP]
NOT MOUNT
C435
6.3V
100uF(M)
3.3V
1394+3.3V
NOT MOUNT
L410
330ohm
NOT MOUNT
NOT MOUNT
C436
6V
47uF(M)
[CP]
C437
100nF(Z)
S1394+2.5V
NOT MOUNT
C415
C416
C417
100nF(Z)
[CP]
6V 47uF(M)
C409
C410
C411
C412
C413
C414
100nF(Z)
S1394+3.3V
C418
C419
C420
C421
C422
[CP]
6V 47uF(M)
C424
C425
C426
C427
C428
100nF(Z)

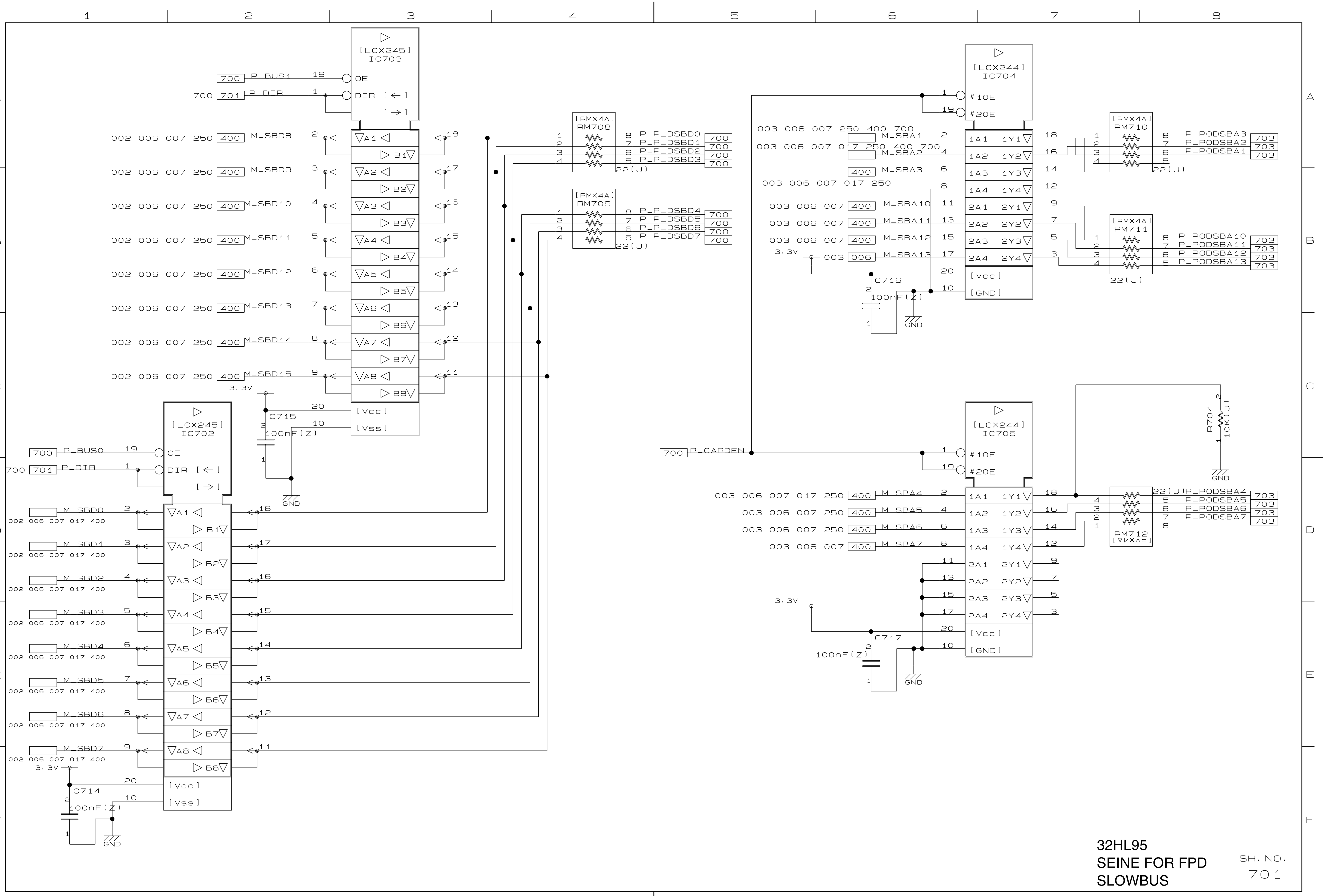
32HL95
SEINE FOR FPD
MB86619 (POWER)

SH. NO.
401


1
2
3
4
5
6
7
8
A
B
C
D
E
F
3.3V
4.7K(J)
[RMX4A]
RM728
GDM450000528
[G95144TQ144]
IC701
[RMX4A]
RM706
22(J)
JTAG_TDI
JTAG_TMS
JTAG_TCK
JTAG_TDO
004
M_SBCLK0
P_PODCLK
M_PODRST
002
703
001
IO/GCK1
IO/GCK2
IO/GCK3
IO/GTS1
IO/GTS2
IO/GTS3
IO/GTS4
IO/GSR
TCK
TDI
TDO
TMS
DEMO_D7
DEMO_D6
DEMO_D5
DEMO_D4
DEMO_D3
DEMO_D2
DEMO_D1
DEMO_D0
DEMO_SYC
DEMO_VAL
DEMO_ERR
DEMO_CLK
POD_CRX
POD_DRX
101
form TUNER
P_TSDAT0
P_TSDAT1
P_TSDAT2
P_TSDAT3
P_TSDAT4
P_TSDAT5
P_TSDAT6
P_TSDAT7
P_TSSYNC
P_TSVLD
P_TSCLK
to POD
22(J) R728
22(J) R729
M_UATXD3_SW
M_UARXD3_SW
009
to G-LINK buffer
P_PODSBD0
P_PODSBD1
P_PODSBD2
P_PODSBD3
P_PODSBD4
P_PODSBD5
P_PODSBD6
P_PODSBD7
P_PODCE1
P_PODCE2
P_PODWE
P_PODOE
P_PODRST
P_PODIORD
P_PODIOWR
P_REG
P_PODSBA0
P_PODSBA8
P_PODSBA9
P_IREQ
P_WAIT
P_CD1
P_CD2
P_VS1
P_VS2
P_PODTS0
P_PODTS1
P_PODTS2
P_PODTS3
P_PODTS4
P_PODTS5
P_PODTS6
P_PODTS7
P_PODSYNC
P_PODVLD
from POD
P_BUS0
P_BUS1
P_DIR
P_CARDEN
P_PLDSBD0
P_PLDSBD1
P_PLDSBD2
P_PLDSBD3
P_PLDSBD4
P_PLDSBD5
P_PLDSBD6
P_PLDSBD7
to Buffer
from Buffer
M_SBA1
M_SBA8
M_SBA9
M_SBA16
M_SBBE0
M_SBBE1
M_SBCE6
M_SBWE3
M_SBOE3
M_SBA2
006 007 250 400 701
006 007 400
006 007 400
006
from SEINE
017
017
006 007 017 250 400 701
to SEINE
M_SBACK
M_PODINT
R727 22(J)
22(J) TS_SE0DATA0
TS_SE0DATA1
TS_SE0DATA2
TS_SE0DATA3
RM701 [RMX4A]
150
to SEINE(TS Selector)
22(J) TS_SE0DATA4
TS_SE0DATA5
TS_SE0DATA6
TS_SE0DATA7
RM702 [RMX4A]
22(J) TS_SE0CLK
TS_SE0SYNC
TS_SE0VLD
TS_SE0ERR
RM703 [RMX4A]
M_SBCE2
P_CTL0
P_CTL1
M_SBWE4
M_SBOE4
to POD power comtroller
[RMX4A]
RM727
33(J)
E_ENCWE
E_ENCOE
E_ENCCE
250
VCCINT
VCCIO
GND
XC95144XL-10TQG144C-H95
C704
C705
C706
C707
C708
C709
C710
C711
C712
C713
100nF(Z)

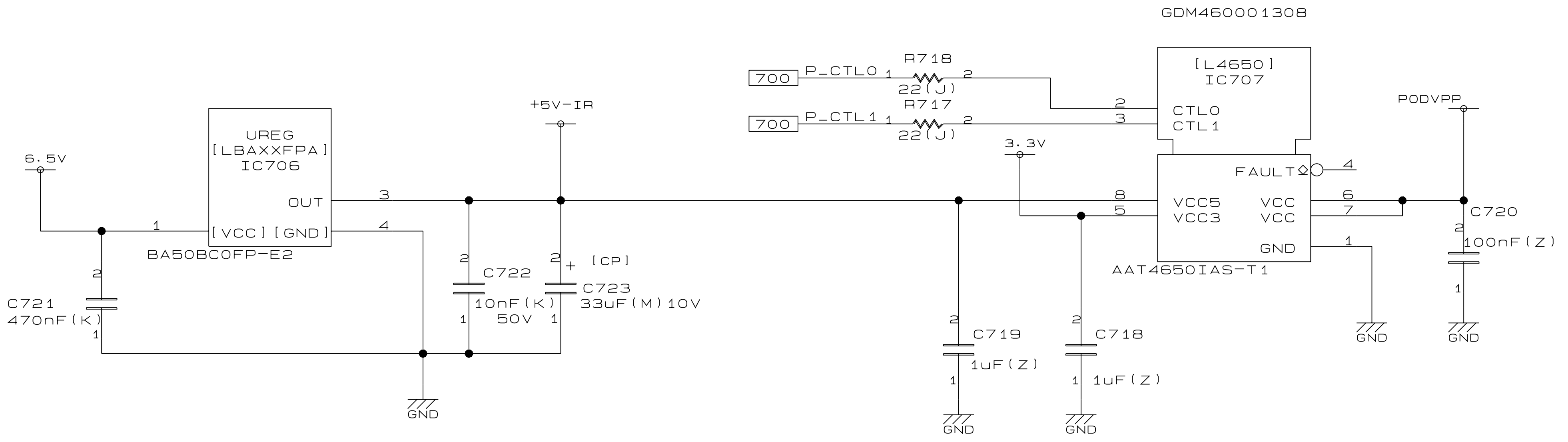
32HL95
SEINE FOR FPD
CPLD XILINX

SH. NO.
700


[LCX245] IC703
[LCX245] IC702
[LCX244] IC704
[LCX244] IC705
OE
DIR [←]
[→]
P_BUS1
P_BUS0
P_DIR
700
701
M_SBD0
M_SBD1
M_SBD2
M_SBD3
M_SBD4
M_SBD5
M_SBD6
M_SBD7
M_SBD8
M_SBD9
M_SBD10
M_SBD11
M_SBD12
M_SBD13
M_SBD14
M_SBD15
002 006 007 250 400
002 006 007 017 400
A1 A2 A3 A4 A5 A6 A7 A8
B1 B2 B3 B4 B5 B6 B7 B8
[Vcc]
[Vss]
[GND]
3.3V
C714 100nF(Z)
C715 100nF(Z)
C716 100nF(Z)
C717 100nF(Z)
GND
[RMX4A] RM708
[RMX4A] RM709
[RMX4A] RM710
[RMX4A] RM711
[RMX4A] RM712
22(J)
P_PLDSBD0
P_PLDSBD1
P_PLDSBD2
P_PLDSBD3
P_PLDSBD4
P_PLDSBD5
P_PLDSBD6
P_PLDSBD7
P_CARDEN
#1OE
#2OE
1A1 1A2 1A3 1A4 2A1 2A2 2A3 2A4
1Y1 1Y2 1Y3 1Y4 2Y1 2Y2 2Y3 2Y4
M_SBA1
M_SBA2
M_SBA3
M_SBA4
M_SBA5
M_SBA6
M_SBA7
M_SBA10
M_SBA11
M_SBA12
M_SBA13
003 006 007 250 400 700
003 006 007 017 250 400 700
003 006 007 017 250
003 006 007 250
003 006 007
003 006
P_PODSBA1
P_PODSBA2
P_PODSBA3
P_PODSBA4
P_PODSBA5
P_PODSBA6
P_PODSBA7
P_PODSBA10
P_PODSBA11
P_PODSBA12
P_PODSBA13
703
R704 10K(J)
1 2 3 4 5 6 7 8
A B C D E F

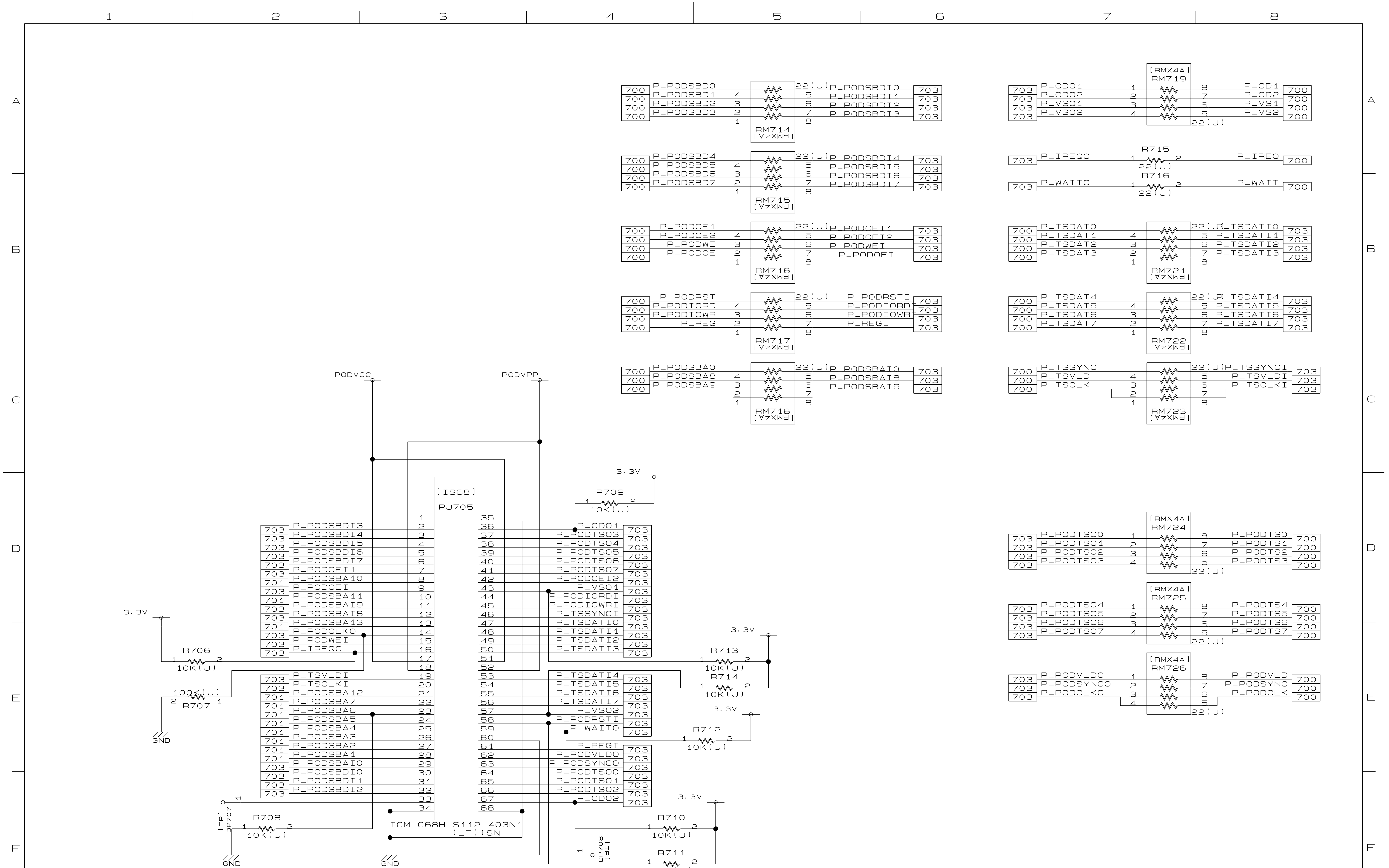
32HL95
SEINE FOR FPD
SLOWBUS

SH. NO.
701


6.5V
UREG
[LBAXXFPA]
IC706
OUT
[VCC] [GND]
BA50BC0FP-E2
1
3
4
C721
470nF(K)
C722
10nF(K)
50V
+5V-IR
C723
33uF(M)10V
[CP]
GND
700
P_CTL0
700
P_CTL1
R718
22(J)
R717
22(J)
GDM46000130B
[L4650]
IC707
CTL0
CTL1
FAULT
VCC5
VCC3
VCC
VCC
GND
AAT4650IAS-T1
3.3V
C719
1uF(Z)
C718
1uF(Z)
PODVPP
C720
100nF(Z)
GND
GND
GND
GND
GND

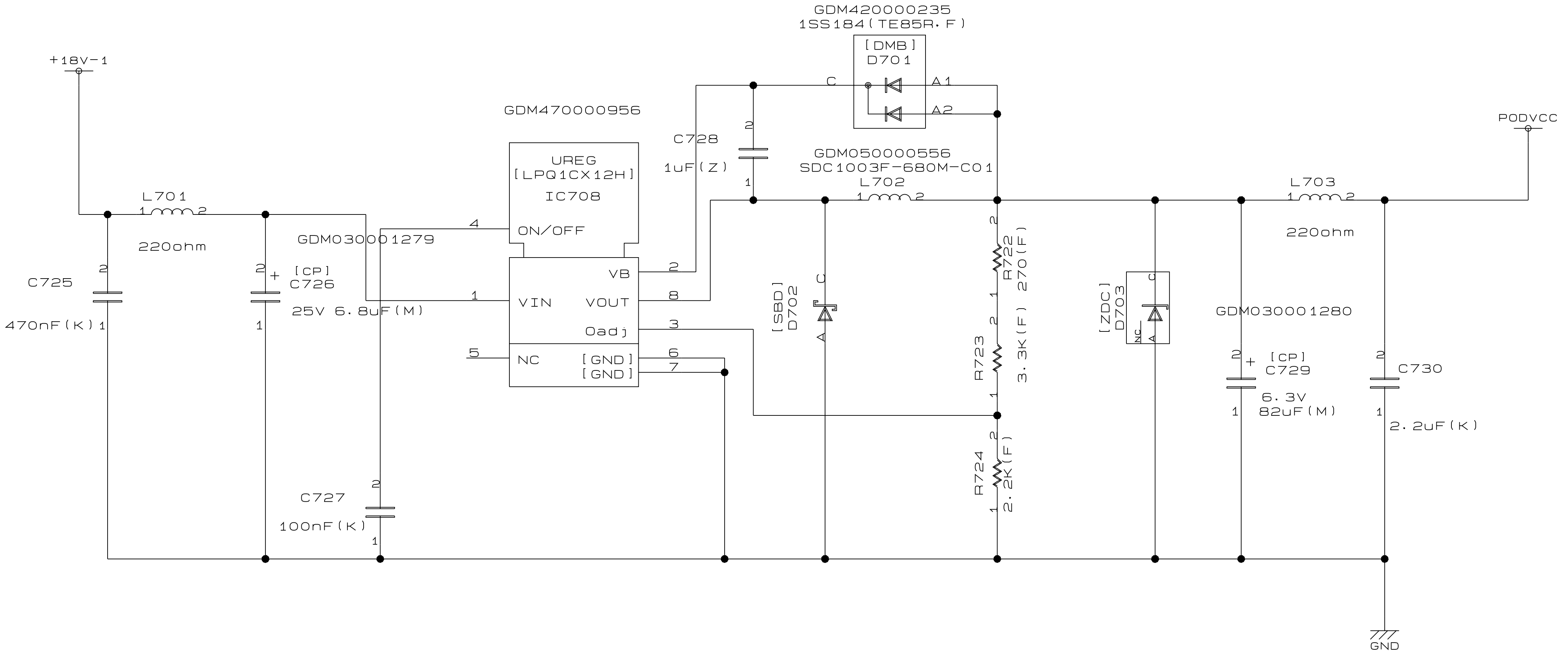
32HL95
SEINE FOR FPD
PODVPP

SH. NO.
702


1
2
3
4
5
6
7
8
A
B
C
D
E
F
RM714 [RMX4A]
P_PODSBD0
P_PODSBD1
P_PODSBD2
P_PODSBD3
P_PODSBDI0
P_PODSBDI1
P_PODSBDI2
P_PODSBDI3
RM715 [RMX4A]
P_PODSBD4
P_PODSBD5
P_PODSBD6
P_PODSBD7
P_PODSBDI4
P_PODSBDI5
P_PODSBDI6
P_PODSBDI7
RM716 [RMX4A]
P_PODCE1
P_PODCE2
P_PODWE
P_PODOE
P_PODCEI1
P_PODCEI2
P_PODWEI
P_PODOEI
RM717 [RMX4A]
P_PODRST
P_PODIORD
P_PODIOWR
P_REG
P_PODRSTI
P_PODIORDI
P_PODIOWRI
P_REGI
RM718 [RMX4A]
P_PODSBA0
P_PODSBA8
P_PODSBA9
P_PODSBAI0
P_PODSBAI8
P_PODSBAI9
22(J)
RM719 [RMX4A]
P_CD01
P_CD02
P_VS01
P_VS02
P_CD1
P_CD2
P_VS1
P_VS2
R715
P_IREQ0
P_IREQ
22(J)
R716
P_WAIT0
P_WAIT
22(J)
RM721 [RMX4A]
P_TSDAT0
P_TSDAT1
P_TSDAT2
P_TSDAT3
P_TSDATI0
P_TSDATI1
P_TSDATI2
P_TSDATI3
RM722 [RMX4A]
P_TSDAT4
P_TSDAT5
P_TSDAT6
P_TSDAT7
P_TSDATI4
P_TSDATI5
P_TSDATI6
P_TSDATI7
RM723 [RMX4A]
P_TSSYNC
P_TSVLD
P_TSCLK
P_TSSYNCI
P_TSVLDI
P_TSCLKI
PODVCC
PODVPP
[IS68]
PJ705
ICM-C68H-S112-403N1 (LF)(SN
3.3V
R709 10K(J)
P_PODSBDI3
P_PODSBDI4
P_PODSBDI5
P_PODSBDI6
P_PODSBDI7
P_PODCEI1
P_PODSBA10
P_PODOEI
P_PODSBA11
P_PODSBAI9
P_PODSBAI8
P_PODSBA13
P_PODCLK0
P_PODWEI
P_IREQ0
P_TSVLDI
P_TSCLKI
P_PODSBA12
P_PODSBA7
P_PODSBA6
P_PODSBA5
P_PODSBA4
P_PODSBA3
P_PODSBA2
P_PODSBA1
P_PODSBAI0
P_PODSBDI0
P_PODSBDI1
P_PODSBDI2
P_CD01
P_PODTS03
P_PODTS04
P_PODTS05
P_PODTS06
P_PODTS07
P_PODCEI2
P_VS01
P_PODIORDI
P_PODIOWRI
P_TSSYNCI
P_TSDATI0
P_TSDATI1
P_TSDATI2
P_TSDATI3
P_TSDATI4
P_TSDATI5
P_TSDATI6
P_TSDATI7
P_VS02
P_PODRSTI
P_WAIT0
P_REGI
P_PODVLD0
P_PODSYNC0
P_PODTS00
P_PODTS01
P_PODTS02
P_CD02
R706 10K(J)
R707 100K(J)
GND
R708 10K(J)
DP707 [TP]
R713 10K(J)
R714 10K(J)
R712 10K(J)
R710 10K(J)
R711 10K(J)
DP708 [TP]
RM724 [RMX4A]
P_PODTS00
P_PODTS01
P_PODTS02
P_PODTS03
P_PODTS0
P_PODTS1
P_PODTS2
P_PODTS3
RM725 [RMX4A]
P_PODTS04
P_PODTS05
P_PODTS06
P_PODTS07
P_PODTS4
P_PODTS5
P_PODTS6
P_PODTS7
RM726 [RMX4A]
P_PODVLD0
P_PODSYNC0
P_PODCLK0
P_PODVLD
P_PODSYNC
P_PODCLK
700
701
703

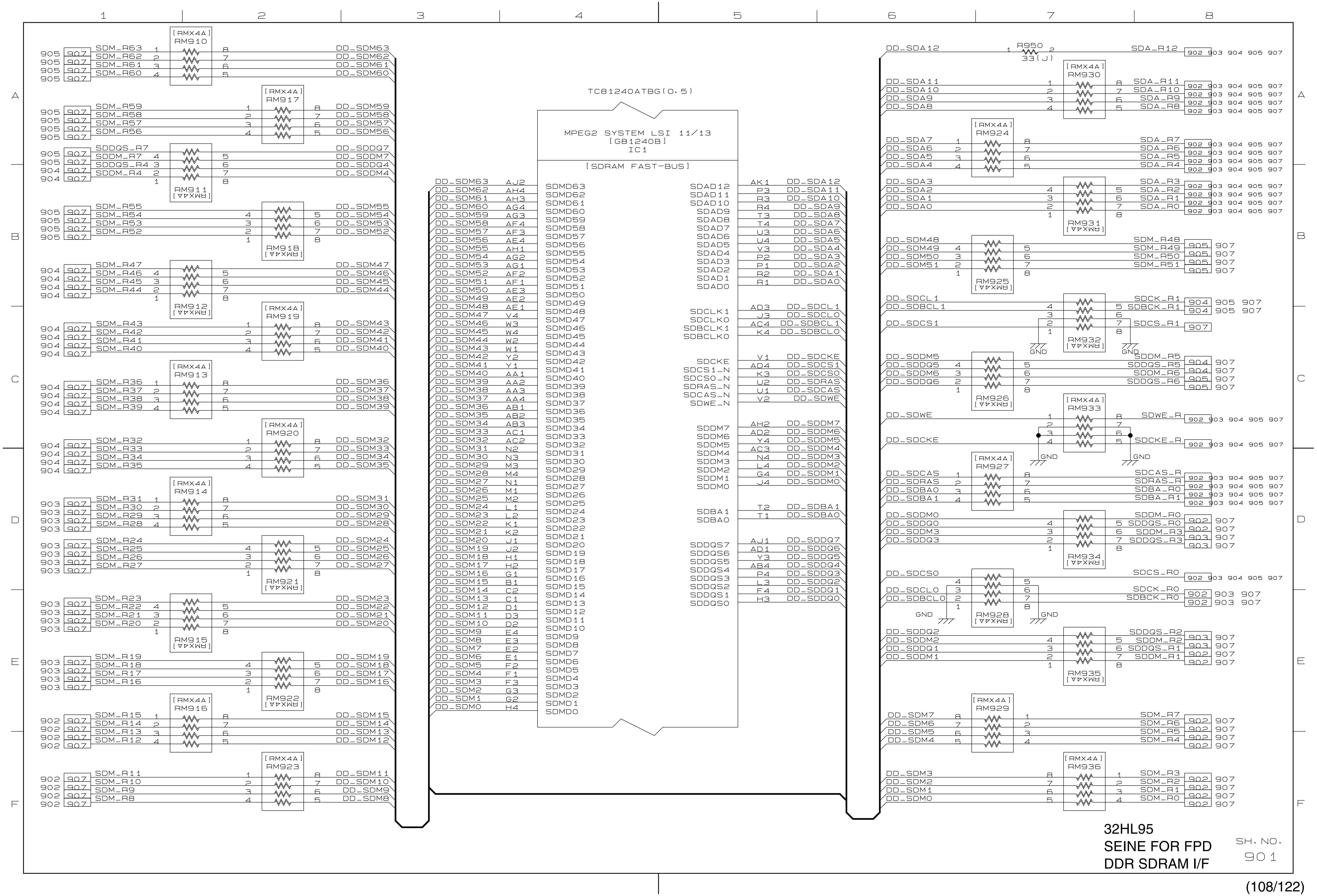
32HL95
SEINE FOR FPD
POD I/F

SH. NO.
703


+18V-1
L701
220ohm
C725
470nF(K)
[CP]
C726
25V 6.8uF(M)
GDM030001279
C727
100nF(K)
GDM470000956
UREG
[LPQ1CX12H]
IC708
ON/OFF
VIN
NC
VB
VOUT
Oadj
[GND]
[GND]
C728
1uF(Z)
GDM420000235
1SS184(TE85R.F)
[DMB]
D701
C
A1
A2
GDM050000556
SDC1003F-680M-C01
L702
[SBD]
D702
R722
270(F)
R723
3.3K(F)
R724
2.2K(F)
[ZDC]
D703
NC
GDM030001280
[CP]
C729
6.3V
82uF(M)
C730
2.2uF(K)
L703
220ohm
PODVCC
GND

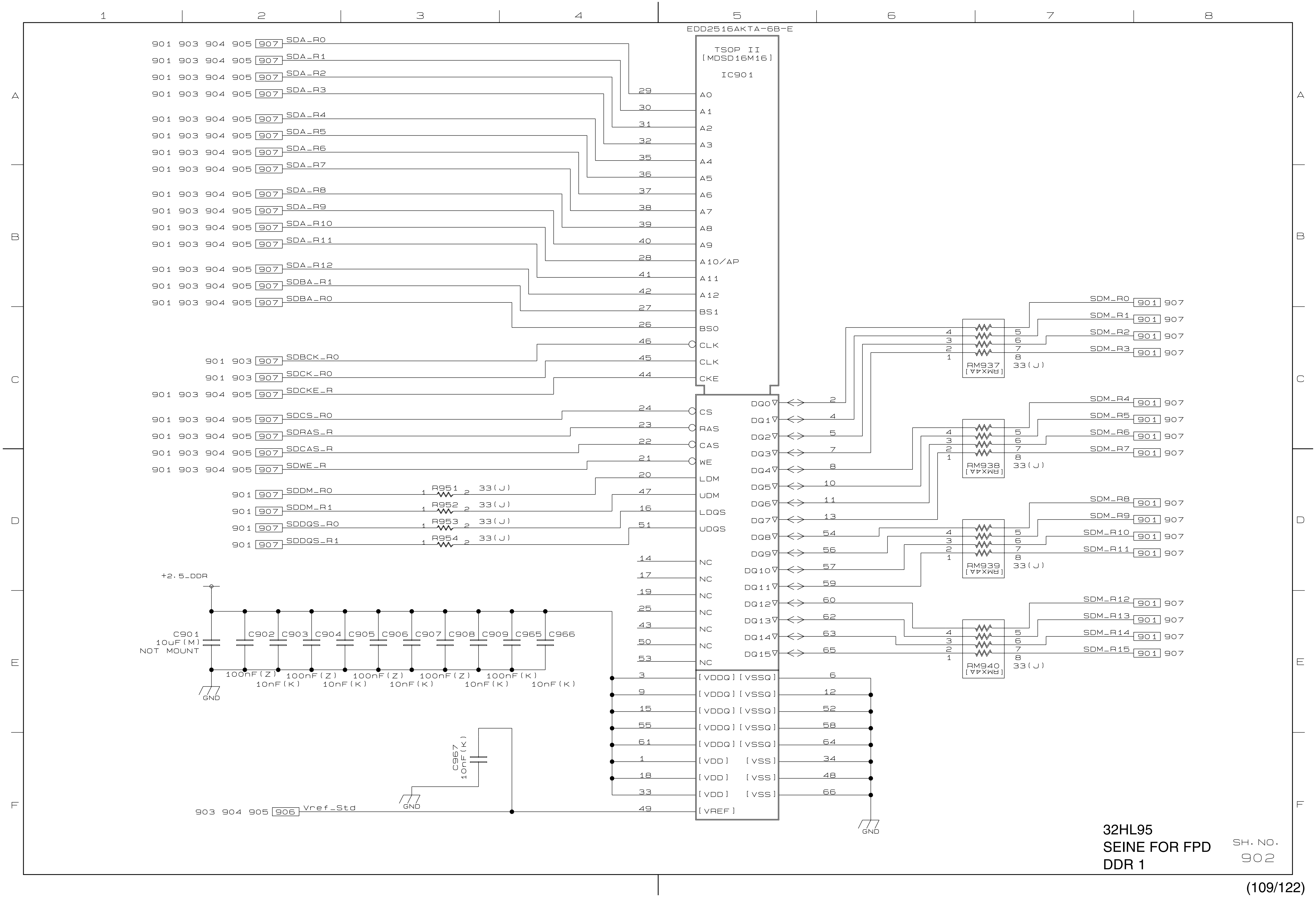
32HL95
SEINE FOR FPD
PODVCC

SH. NO.
704


TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 11/13
[G81240B]
IC1
[SDRAM FAST-BUS]
SDMD63 … SDMD0
SDAD12 SDAD11 SDAD10 SDAD9 SDAD8 SDAD7 SDAD6 SDAD5 SDAD4 SDAD3 SDAD2 SDAD1 SDAD0
SDCLK1 SDCLK0 SDBCLK1 SDBCLK0
SDCKE SDCS1_N SDCS0_N SDRAS_N SDCAS_N SDWE_N
SDDM7 SDDM6 SDDM5 SDDM4 SDDM3 SDDM2 SDDM1 SDDM0
SDBA1 SDBA0
SDDQS7 SDDQS6 SDDQS5 SDDQS4 SDDQS3 SDDQS2 SDDQS1 SDDQS0
[RMX4A] RM910 RM911 RM912 RM913 RM914 RM915 RM916 RM917 RM918 RM919 RM920 RM921 RM922 RM923
[RMX4A] RM924 RM925 RM926 RM927 RM928 RM929 RM930 RM931 RM932 RM933 RM934 RM935 RM936
R950 33(J)
DD_SDM63 … DD_SDM0
SDM_R63 … SDM_R0
DD_SDA12 … DD_SDA0
SDA_R12 … SDA_R0
DD_SDCL1 DD_SDCL0 DD_SDBCL1 DD_SDBCL0
DD_SDCKE DD_SDCS1 DD_SDCS0 DD_SDRAS DD_SDCAS DD_SDWE
DD_SDDM7 … DD_SDDM0
DD_SDDQ7 … DD_SDDQ0
DD_SDBA1 DD_SDBA0
SDDQS_R7 SDDM_R7 SDDQS_R4 SDDM_R4
SDCK_R1 SDBCK_R1 SDCS_R1 SDCK_R0 SDBCK_R0 SDCS_R0
SDWE_R SDCKE_R SDCAS_R SDRAS_R SDBA_R0 SDBA_R1
SDDM_R5 SDDQS_R5 SDDM_R6 SDDQS_R6
SDDM_R0 SDDQS_R0 SDDM_R3 SDDQS_R3
SDDQS_R2 SDDM_R2 SDDQS_R1 SDDM_R1
GND
902 903 904 905 907
1 2 3 4 5 6 7 8
A B C D E F

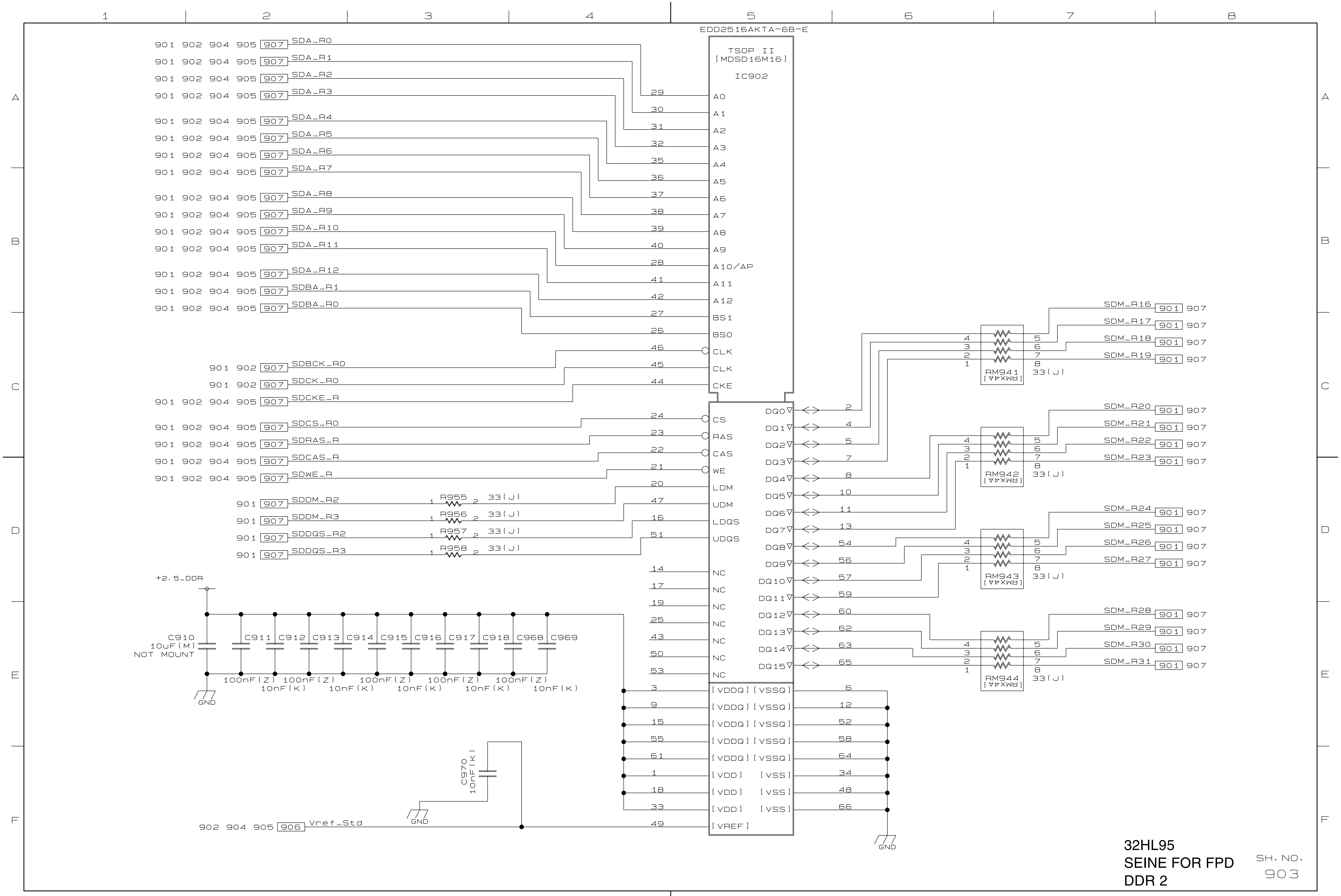
32HL95
SEINE FOR FPD
DDR SDRAM I/F

SH. NO.
901


EDD2516AKTA-6B-E
TSOP II
[MDSD16M16]
IC901
901 903 904 905 907 SDA_R0 29 A0
901 903 904 905 907 SDA_R1 30 A1
901 903 904 905 907 SDA_R2 31 A2
901 903 904 905 907 SDA_R3 32 A3
901 903 904 905 907 SDA_R4 35 A4
901 903 904 905 907 SDA_R5 36 A5
901 903 904 905 907 SDA_R6 37 A6
901 903 904 905 907 SDA_R7 38 A7
901 903 904 905 907 SDA_R8 39 A8
901 903 904 905 907 SDA_R9 40 A9
901 903 904 905 907 SDA_R10 28 A10/AP
901 903 904 905 907 SDA_R11 41 A11
901 903 904 905 907 SDA_R12 42 A12
901 903 904 905 907 SDBA_R1 27 BS1
901 903 904 905 907 SDBA_R0 26 BS0
901 903 907 SDBCK_R0 46 CLK
901 903 907 SDCK_R0 45 CLK
901 903 904 905 907 SDCKE_R 44 CKE
901 903 904 905 907 SDCS_R0 24 CS
901 903 904 905 907 SDRAS_R 23 RAS
901 903 904 905 907 SDCAS_R 22 CAS
901 903 904 905 907 SDWE_R 21 WE
901 907 SDDM_R0 R951 33(J) 20 LDM
901 907 SDDM_R1 R952 33(J) 47 UDM
901 907 SDDQS_R0 R953 33(J) 16 LDQS
901 907 SDDQS_R1 R954 33(J) 51 UDQS
14 NC
17 NC
19 NC
25 NC
43 NC
50 NC
53 NC
DQ0 2
DQ1 4
DQ2 5
DQ3 7
DQ4 8
DQ5 10
DQ6 11
DQ7 13
DQ8 54
DQ9 56
DQ10 57
DQ11 59
DQ12 60
DQ13 62
DQ14 63
DQ15 65
RM937 [RMX4A] 33(J)
RM938 [RMX4A] 33(J)
RM939 [RMX4A] 33(J)
RM940 [RMX4A] 33(J)
SDM_R0 901 907
SDM_R1 901 907
SDM_R2 901 907
SDM_R3 901 907
SDM_R4 901 907
SDM_R5 901 907
SDM_R6 901 907
SDM_R7 901 907
SDM_R8 901 907
SDM_R9 901 907
SDM_R10 901 907
SDM_R11 901 907
SDM_R12 901 907
SDM_R13 901 907
SDM_R14 901 907
SDM_R15 901 907
+2.5_DDR
C901 10uF(M) NOT MOUNT
C902 C903 C904 C905 C906 C907 C908 C909 C965 C966
100nF(Z) 100nF(Z) 100nF(Z) 100nF(Z) 100nF(K)
10nF(K) 10nF(K) 10nF(K) 10nF(K) 10nF(K)
GND
3 [VDDQ] [VSSQ] 6
9 [VDDQ] [VSSQ] 12
15 [VDDQ] [VSSQ] 52
55 [VDDQ] [VSSQ] 58
61 [VDDQ] [VSSQ] 64
1 [VDD] [VSS] 34
18 [VDD] [VSS] 48
33 [VDD] [VSS] 66
C967 10nF(K)
903 904 905 906 Vref_Std 49 [VREF]
1 2 3 4 5 6 7 8
A B C D E F

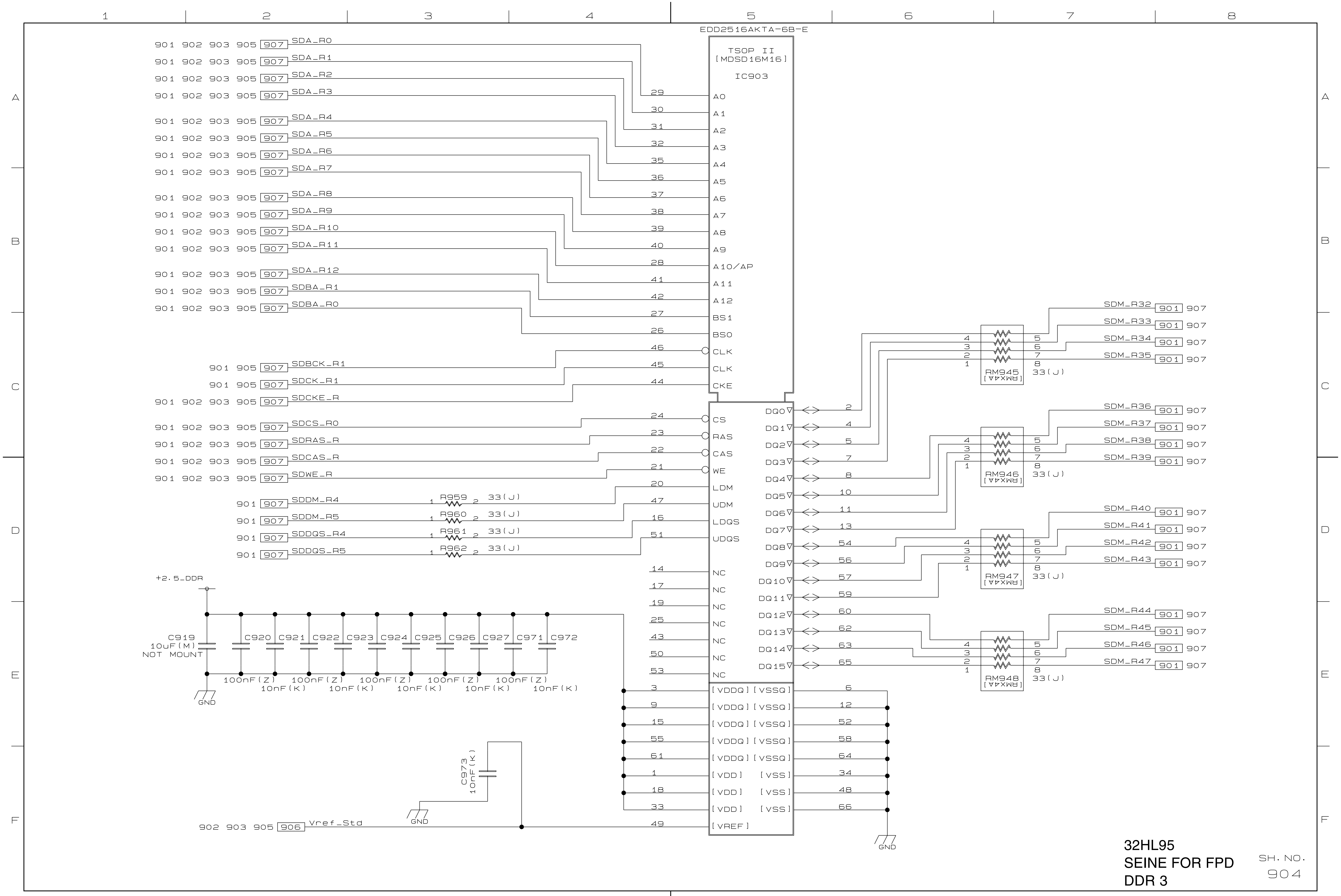
32HL95
SEINE FOR FPD
DDR 1

SH. NO.
902


EDD2516AKTA-6B-E
TSOP II
[MDSD16M16]
IC902
SDA_R0 29 A0
SDA_R1 30 A1
SDA_R2 31 A2
SDA_R3 32 A3
SDA_R4 35 A4
SDA_R5 36 A5
SDA_R6 37 A6
SDA_R7 38 A7
SDA_R8 39 A8
SDA_R9 40 A9
SDA_R10 28 A10/AP
SDA_R11 41 A11
SDA_R12 42 A12
SDBA_R1 27 BS1
SDBA_R0 26 BS0
46 CLK
SDBCK_R0 45 CLK
SDCK_R0 44 CKE
SDCKE_R
SDCS_R0 24 CS
SDRAS_R 23 RAS
SDCAS_R 22 CAS
SDWE_R 21 WE
20 LDM
47 UDM
16 LDQS
51 UDQS
901 902 904 905 907
901 902 907
901 907
SDDM_R2 R955 33(J)
SDDM_R3 R956 33(J)
SDDQS_R2 R957 33(J)
SDDQS_R3 R958 33(J)
14 17 19 25 43 50 53 NC
DQ0 2
DQ1 4
DQ2 5
DQ3 7
DQ4 8
DQ5 10
DQ6 11
DQ7 13
DQ8 54
DQ9 56
DQ10 57
DQ11 59
DQ12 60
DQ13 62
DQ14 63
DQ15 65
RM941 [RMX4A] 33(J)
RM942 [RMX4A] 33(J)
RM943 [RMX4A] 33(J)
RM944 [RMX4A] 33(J)
SDM_R16 SDM_R17 SDM_R18 SDM_R19
SDM_R20 SDM_R21 SDM_R22 SDM_R23
SDM_R24 SDM_R25 SDM_R26 SDM_R27
SDM_R28 SDM_R29 SDM_R30 SDM_R31
901 907
[VDDQ] 3 9 15 55 61
[VSSQ] 6 12 52 58 64
[VDD] 1 18 33
[VSS] 34 48 66
[VREF] 49
+2.5_DDR
C910 10uF(M) NOT MOUNT
C911 C912 C913 C914 C915 C916 C917 C918 C968 C969
100nF(Z) 10nF(K)
C970 10nF(K)
GND
902 904 905 906 Vref_Std
1 2 3 4 5 6 7 8
A B C D E F

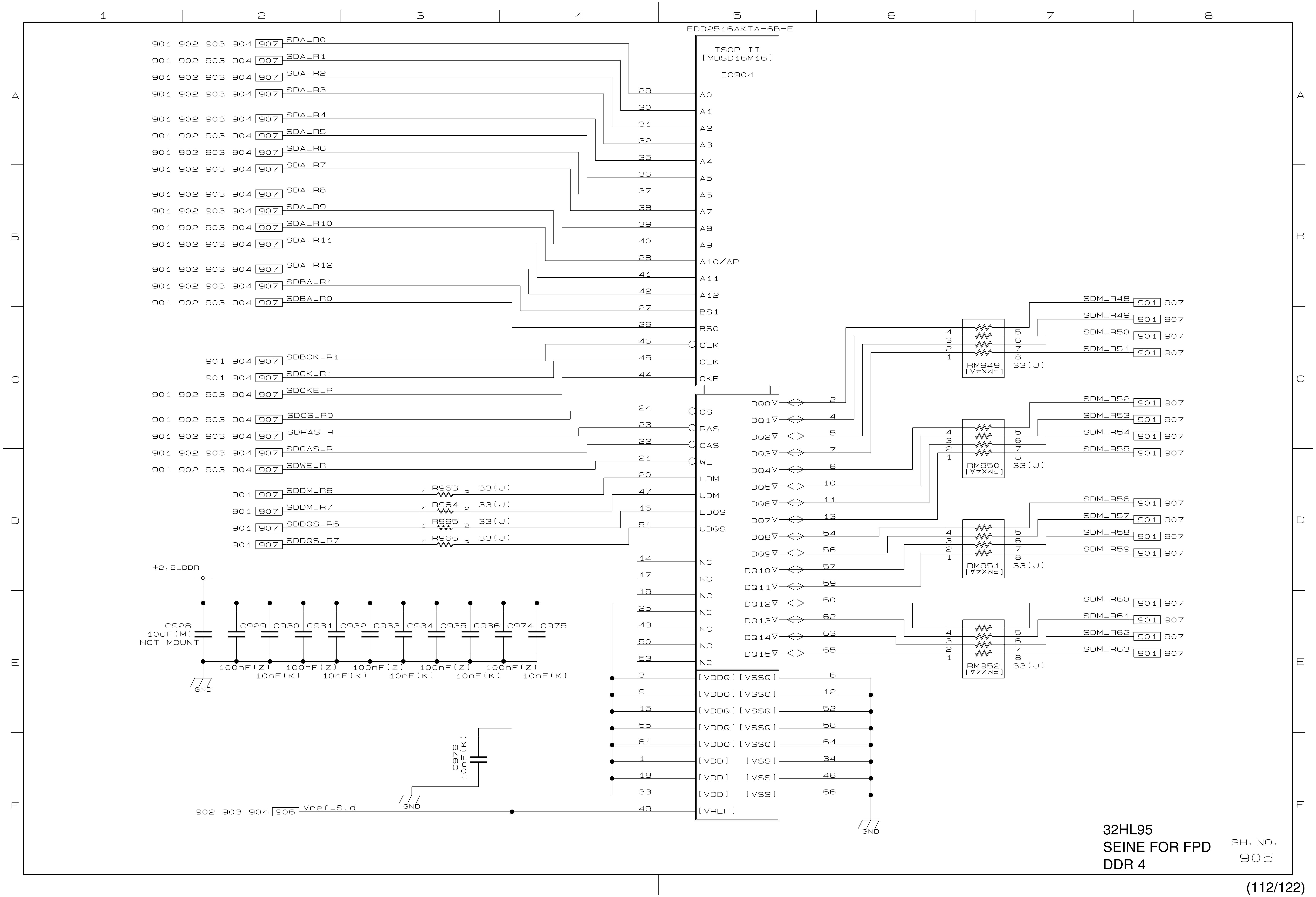
32HL95
SEINE FOR FPD
DDR 2

SH. NO.
903


EDD2516AKTA-6B-E
TSOP II
[MDSD16M16]
IC903
901 902 903 905 907 SDA_R0 29 A0
901 902 903 905 907 SDA_R1 30 A1
901 902 903 905 907 SDA_R2 31 A2
901 902 903 905 907 SDA_R3 32 A3
901 902 903 905 907 SDA_R4 35 A4
901 902 903 905 907 SDA_R5 36 A5
901 902 903 905 907 SDA_R6 37 A6
901 902 903 905 907 SDA_R7 38 A7
901 902 903 905 907 SDA_R8 39 A8
901 902 903 905 907 SDA_R9 40 A9
901 902 903 905 907 SDA_R10 28 A10/AP
901 902 903 905 907 SDA_R11 41 A11
901 902 903 905 907 SDA_R12 42 A12
901 902 903 905 907 SDBA_R1 27 BS1
901 902 903 905 907 SDBA_R0 26 BS0
901 905 907 SDBCK_R1 46 CLK
901 905 907 SDCK_R1 45 CLK
901 902 903 905 907 SDCKE_R 44 CKE
901 902 903 905 907 SDCS_R0 24 CS
901 902 903 905 907 SDRAS_R 23 RAS
901 902 903 905 907 SDCAS_R 22 CAS
901 902 903 905 907 SDWE_R 21 WE
901 907 SDDM_R4 R959 33(J) 20 LDM
901 907 SDDM_R5 R960 33(J) 47 UDM
901 907 SDDQS_R4 R961 33(J) 16 LDQS
901 907 SDDQS_R5 R962 33(J) 51 UDQS
14 NC
17 NC
19 NC
25 NC
43 NC
50 NC
53 NC
DQ0 2
DQ1 4
DQ2 5
DQ3 7
DQ4 8
DQ5 10
DQ6 11
DQ7 13
DQ8 54
DQ9 56
DQ10 57
DQ11 59
DQ12 60
DQ13 62
DQ14 63
DQ15 65
RM945 [RMX4A] 33(J)
RM946 [RMX4A] 33(J)
RM947 [RMX4A] 33(J)
RM948 [RMX4A] 33(J)
SDM_R32 901 907
SDM_R33 901 907
SDM_R34 901 907
SDM_R35 901 907
SDM_R36 901 907
SDM_R37 901 907
SDM_R38 901 907
SDM_R39 901 907
SDM_R40 901 907
SDM_R41 901 907
SDM_R42 901 907
SDM_R43 901 907
SDM_R44 901 907
SDM_R45 901 907
SDM_R46 901 907
SDM_R47 901 907
+2.5_DDR
C919 10uF(M) NOT MOUNT
C920 C921 C922 C923 C924 C925 C926 C927 C971 C972
100nF(Z) 10nF(K) 100nF(Z) 10nF(K) 100nF(Z) 10nF(K) 100nF(Z) 10nF(K) 100nF(Z) 10nF(K)
GND
3 [VDDQ] [VSSQ] 6
9 [VDDQ] [VSSQ] 12
15 [VDDQ] [VSSQ] 52
55 [VDDQ] [VSSQ] 58
61 [VDDQ] [VSSQ] 64
1 [VDD] [VSS] 34
18 [VDD] [VSS] 48
33 [VDD] [VSS] 66
49 [VREF]
C973 10nF(K)
902 903 905 906 Vref_Std
GND
1 2 3 4 5 6 7 8
A B C D E F

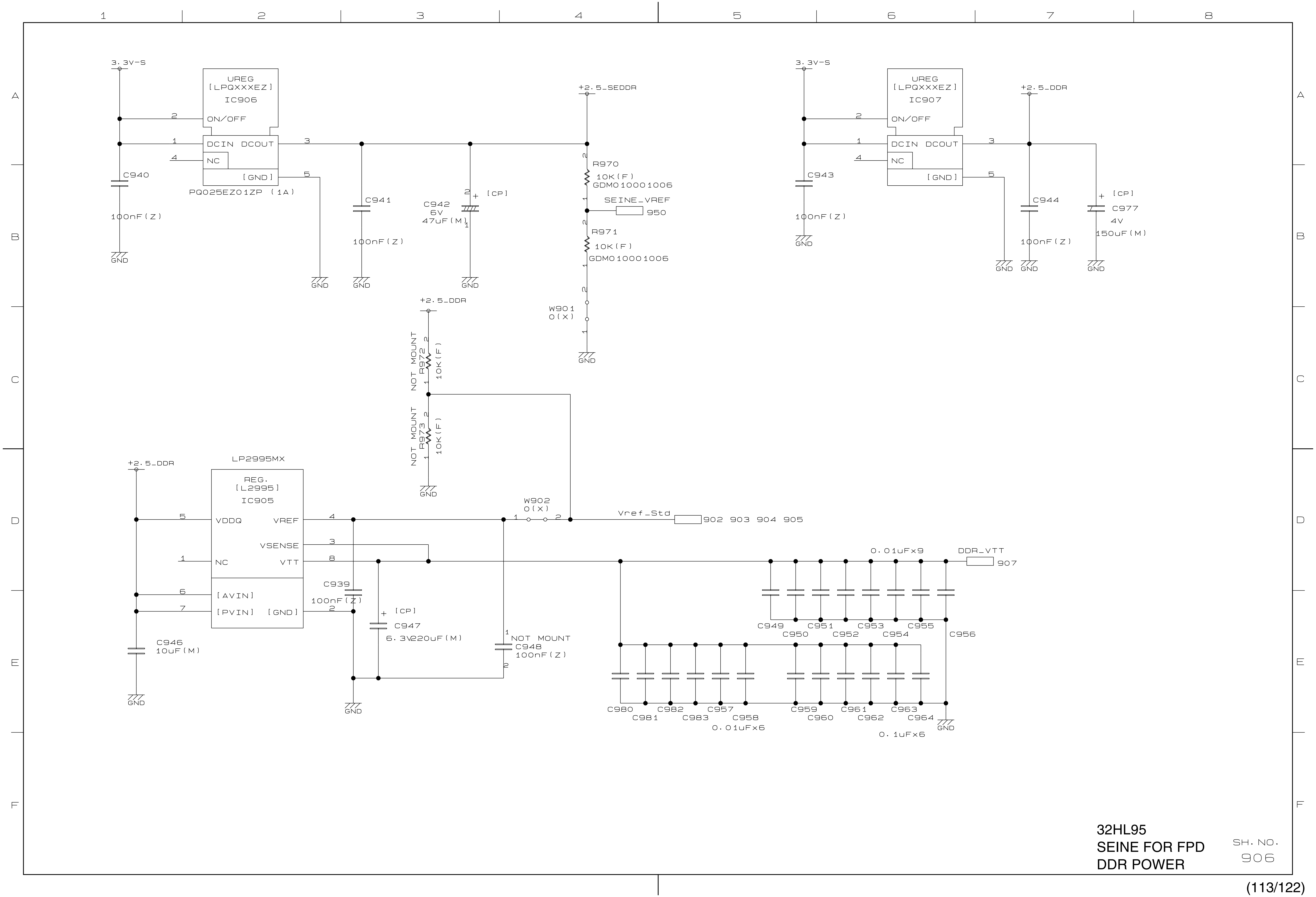
32HL95
SEINE FOR FPD
DDR 3

SH. NO.
904


1
2
3
4
5
6
7
8
A
B
C
D
E
F
EDD2516AKTA-6B-E
TSOP II
[MDSD16M16]
IC904
901 902 903 904 907 SDA_R0 29 A0
901 902 903 904 907 SDA_R1 30 A1
901 902 903 904 907 SDA_R2 31 A2
901 902 903 904 907 SDA_R3 32 A3
901 902 903 904 907 SDA_R4 35 A4
901 902 903 904 907 SDA_R5 36 A5
901 902 903 904 907 SDA_R6 37 A6
901 902 903 904 907 SDA_R7 38 A7
901 902 903 904 907 SDA_R8 39 A8
901 902 903 904 907 SDA_R9 40 A9
901 902 903 904 907 SDA_R10 28 A10/AP
901 902 903 904 907 SDA_R11 41 A11
901 902 903 904 907 SDA_R12 42 A12
901 902 903 904 907 SDBA_R1 27 BS1
901 902 903 904 907 SDBA_R0 26 BS0
901 904 907 SDBCK_R1 46 CLK
901 904 907 SDCK_R1 45 CLK
901 902 903 904 907 SDCKE_R 44 CKE
901 902 903 904 907 SDCS_R0 24 CS
901 902 903 904 907 SDRAS_R 23 RAS
901 902 903 904 907 SDCAS_R 22 CAS
901 902 903 904 907 SDWE_R 21 WE
901 907 SDDM_R6 1 R963 2 33(J) 20 LDM
901 907 SDDM_R7 1 R964 2 33(J) 47 UDM
901 907 SDDQS_R6 1 R965 2 33(J) 16 LDQS
901 907 SDDQS_R7 1 R966 2 33(J) 51 UDQS
14 NC
17 NC
19 NC
25 NC
43 NC
50 NC
53 NC
+2.5_DDR
C928
10uF(M)
NOT MOUNT
C929 C930 C931 C932 C933 C934 C935 C936 C974 C975
100nF(Z) 100nF(Z) 100nF(Z) 100nF(Z) 100nF(Z)
10nF(K) 10nF(K) 10nF(K) 10nF(K) 10nF(K)
GND
3 [VDDQ] [VSSQ] 6
9 [VDDQ] [VSSQ] 12
15 [VDDQ] [VSSQ] 52
55 [VDDQ] [VSSQ] 58
61 [VDDQ] [VSSQ] 64
1 [VDD] [VSS] 34
18 [VDD] [VSS] 48
33 [VDD] [VSS] 66
49 [VREF]
C976
10nF(K)
GND
902 903 904 906 Vref_Std
GND
DQ0 2
DQ1 4
DQ2 5
DQ3 7
DQ4 8
DQ5 10
DQ6 11
DQ7 13
DQ8 54
DQ9 56
DQ10 57
DQ11 59
DQ12 60
DQ13 62
DQ14 63
DQ15 65
4 3 2 1 5 6 7 8
RM949 [RMX4A] 33(J)
SDM_R48 901 907
SDM_R49 901 907
SDM_R50 901 907
SDM_R51 901 907
4 3 2 1 5 6 7 8
RM950 [RMX4A] 33(J)
SDM_R52 901 907
SDM_R53 901 907
SDM_R54 901 907
SDM_R55 901 907
4 3 2 1 5 6 7 8
RM951 [RMX4A] 33(J)
SDM_R56 901 907
SDM_R57 901 907
SDM_R58 901 907
SDM_R59 901 907
4 3 2 1 5 6 7 8
RM952 [RMX4A] 33(J)
SDM_R60 901 907
SDM_R61 901 907
SDM_R62 901 907
SDM_R63 901 907

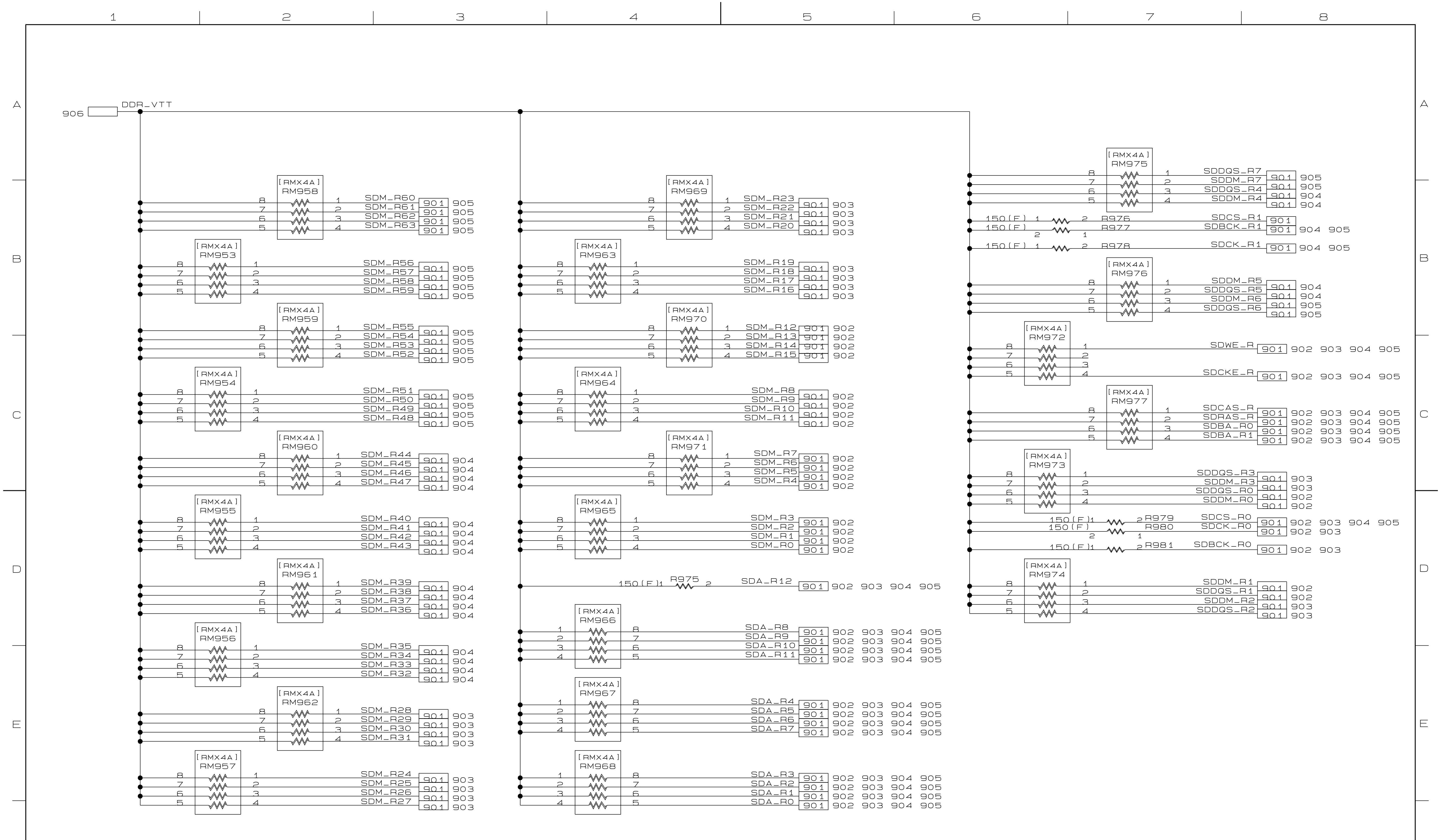
32HL95
SEINE FOR FPD
DDR 4

SH. NO.
905


3.3V-S
UREG
[LPQXXXEZ]
IC906
ON/OFF
DCIN DCOUT
NC
[GND]
PQ025EZ01ZP (1A)
C940
100nF(Z)
GND
C941
100nF(Z)
C942
6V
47uF(M)
[CP]
+2.5_SEDDR
R970
10K(F)
GDM010001006
SEINE_VREF
950
R971
10K(F)
GDM010001006
W901
0(X)
3.3V-S
UREG
[LPQXXXEZ]
IC907
ON/OFF
DCIN DCOUT
NC
[GND]
C943
100nF(Z)
+2.5_DDR
C944
100nF(Z)
[CP]
C977
4V
150uF(M)
+2.5_DDR
NOT MOUNT
R972
10K(F)
NOT MOUNT
R973
10K(F)
LP2995MX
+2.5_DDR
REG.
[L2995]
IC905
VDDQ
VREF
VSENSE
NC
VTT
[AVIN]
[PVIN]
[GND]
C939
100nF(Z)
[CP]
C947
6.3V220uF(M)
C946
10uF(M)
NOT MOUNT
C948
100nF(Z)
W902
0(X)
Vref_Std
902 903 904 905
0.01uFx9
DDR_VTT
907
C949
C950
C951
C952
C953
C954
C955
C956
C980
C981
C982
C983
C957
C958
0.01uFx6
C959
C960
C961
C962
C963
C964
0.1uFx6
GND

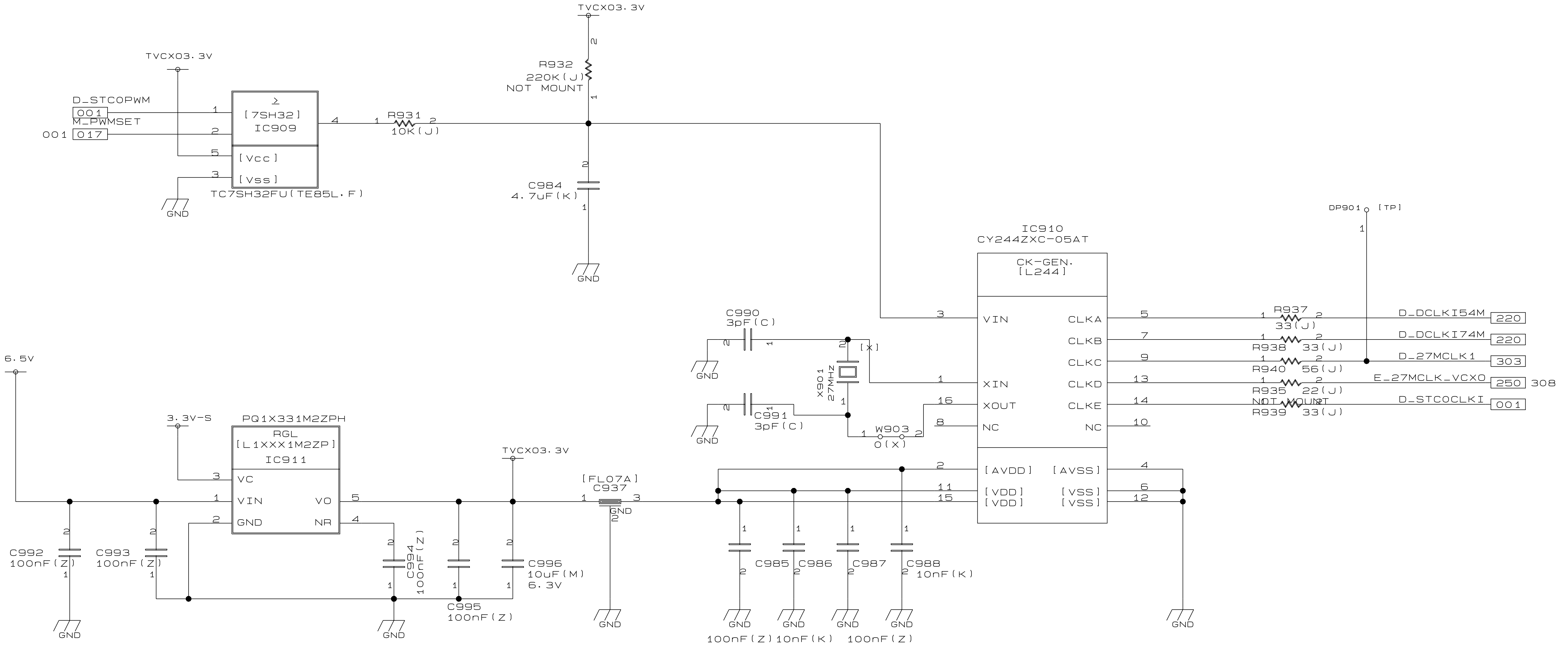
32HL95
SEINE FOR FPD
DDR POWER

SH. NO.
906


1
2
3
4
5
6
7
8
A
B
C
D
E
F
906
DDR_VTT
[RMX4A]
RM958
SDM_R60 901 905
SDM_R61 901 905
SDM_R62 901 905
SDM_R63 901 905
RM953
SDM_R56 901 905
SDM_R57 901 905
SDM_R58 901 905
SDM_R59 901 905
RM959
SDM_R55 901 905
SDM_R54 901 905
SDM_R53 901 905
SDM_R52 901 905
RM954
SDM_R51 901 905
SDM_R50 901 905
SDM_R49 901 905
SDM_R48 901 905
RM960
SDM_R44 901 904
SDM_R45 901 904
SDM_R46 901 904
SDM_R47 901 904
RM955
SDM_R40 901 904
SDM_R41 901 904
SDM_R42 901 904
SDM_R43 901 904
RM961
SDM_R39 901 904
SDM_R38 901 904
SDM_R37 901 904
SDM_R36 901 904
RM956
SDM_R35 901 904
SDM_R34 901 904
SDM_R33 901 904
SDM_R32 901 904
RM962
SDM_R28 901 903
SDM_R29 901 903
SDM_R30 901 903
SDM_R31 901 903
RM957
SDM_R24 901 903
SDM_R25 901 903
SDM_R26 901 903
SDM_R27 901 903
RM969
SDM_R23 901 903
SDM_R22 901 903
SDM_R21 901 903
SDM_R20 901 903
RM963
SDM_R19 901 903
SDM_R18 901 903
SDM_R17 901 903
SDM_R16 901 903
RM970
SDM_R12 901 902
SDM_R13 901 902
SDM_R14 901 902
SDM_R15 901 902
RM964
SDM_R8 901 902
SDM_R9 901 902
SDM_R10 901 902
SDM_R11 901 902
RM971
SDM_R7 901 902
SDM_R6 901 902
SDM_R5 901 902
SDM_R4 901 902
RM965
SDM_R3 901 902
SDM_R2 901 902
SDM_R1 901 902
SDM_R0 901 902
150(F) R975
SDA_R12 901 902 903 904 905
RM966
SDA_R8 901 902 903 904 905
SDA_R9 901 902 903 904 905
SDA_R10 901 902 903 904 905
SDA_R11 901 902 903 904 905
RM967
SDA_R4 901 902 903 904 905
SDA_R5 901 902 903 904 905
SDA_R6 901 902 903 904 905
SDA_R7 901 902 903 904 905
RM968
SDA_R3 901 902 903 904 905
SDA_R2 901 902 903 904 905
SDA_R1 901 902 903 904 905
SDA_R0 901 902 903 904 905
RM975
SDDQS_R7 901 905
SDDM_R7 901 905
SDDQS_R4 901 904
SDDM_R4 901 904
150(F) R976
SDCS_R1 901
150(F) R977
SDBCK_R1 901 904 905
150(F) R978
SDCK_R1 901 904 905
RM976
SDDM_R5 901 904
SDDQS_R5 901 904
SDDM_R6 901 905
SDDQS_R6 901 905
RM972
SDWE_R 901 902 903 904 905
SDCKE_R 901 902 903 904 905
RM977
SDCAS_R 901 902 903 904 905
SDRAS_R 901 902 903 904 905
SDBA_R0 901 902 903 904 905
SDBA_R1 901 902 903 904 905
RM973
SDDQS_R3 901 903
SDDM_R3 901 903
SDDQS_R0 901 902
SDDM_R0 901 902
150(F) R979
SDCS_R0 901 902 903 904 905
150(F) R980
SDCK_R0 901 902 903
150(F) R981
SDBCK_R0 901 902 903
RM974
SDDM_R1 901 902
SDDQS_R1 901 902
SDDM_R2 901 903
SDDQS_R2 901 903

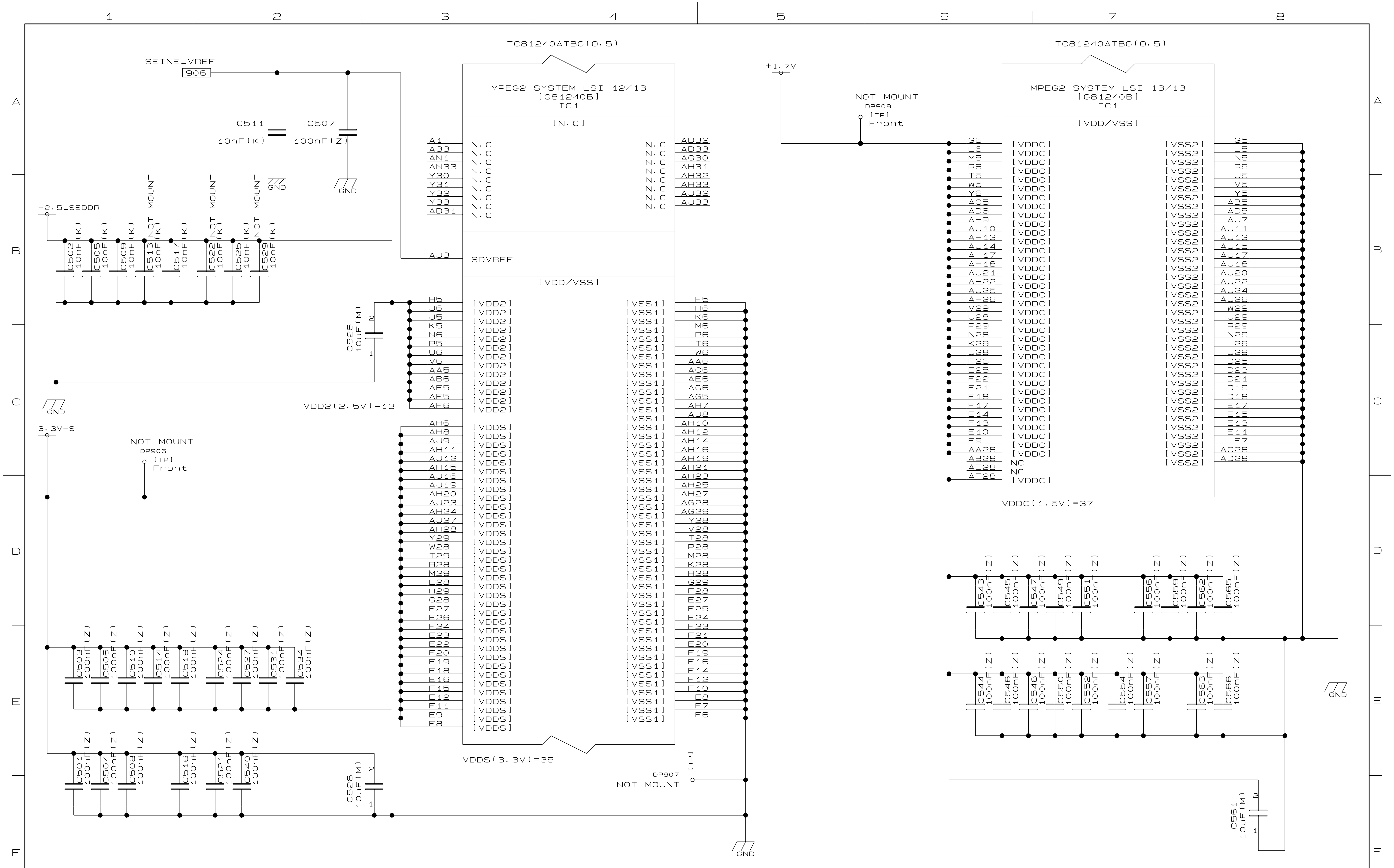
32HL95
SEINE FOR FPD
TERMINATOR

SH. NO.
907


TVCXO3.3V
R932
220K(J)
NOT MOUNT
TVCXO3.3V
D_STCOPWM
001
M_PWMSET
001
017
≥
[7SH32]
IC909
[Vcc]
[Vss]
TC7SH32FU(TE85L.F)
GND
R931
10K(J)
C984
4.7uF(K)
GND
DP901
[TP]
IC910
CY244ZXC-05AT
CK-GEN.
[L244]
C990
3pF(C)
[X]
X901
27MHz
GND
C991
3pF(C)
W903
0(X)
VIN
XIN
XOUT
NC
CLKA
CLKB
CLKC
CLKD
CLKE
NC
[AVDD]
[VDD]
[VDD]
[AVSS]
[VSS]
[VSS]
R937
33(J)
R938
33(J)
R940
56(J)
R935
22(J)
NOT MOUNT
R939
33(J)
D_DCLKI54M
220
D_DCLKI74M
220
D_27MCLK1
303
E_27MCLK_VCXO
250
308
D_STCOCLKI
001
6.5V
3.3V-S
PQ1X331M2ZPH
RGL
[L1XXX1M2ZP]
IC911
VC
VIN
GND
VO
NR
TVCXO3.3V
[FL07A]
C937
GND
C992
100nF(Z)
C993
100nF(Z)
C994
100nF(Z)
C995
100nF(Z)
C996
10uF(M)
6.3V
C985
C986
C987
C988
10nF(K)
100nF(Z)
10nF(K)
100nF(Z)
GND

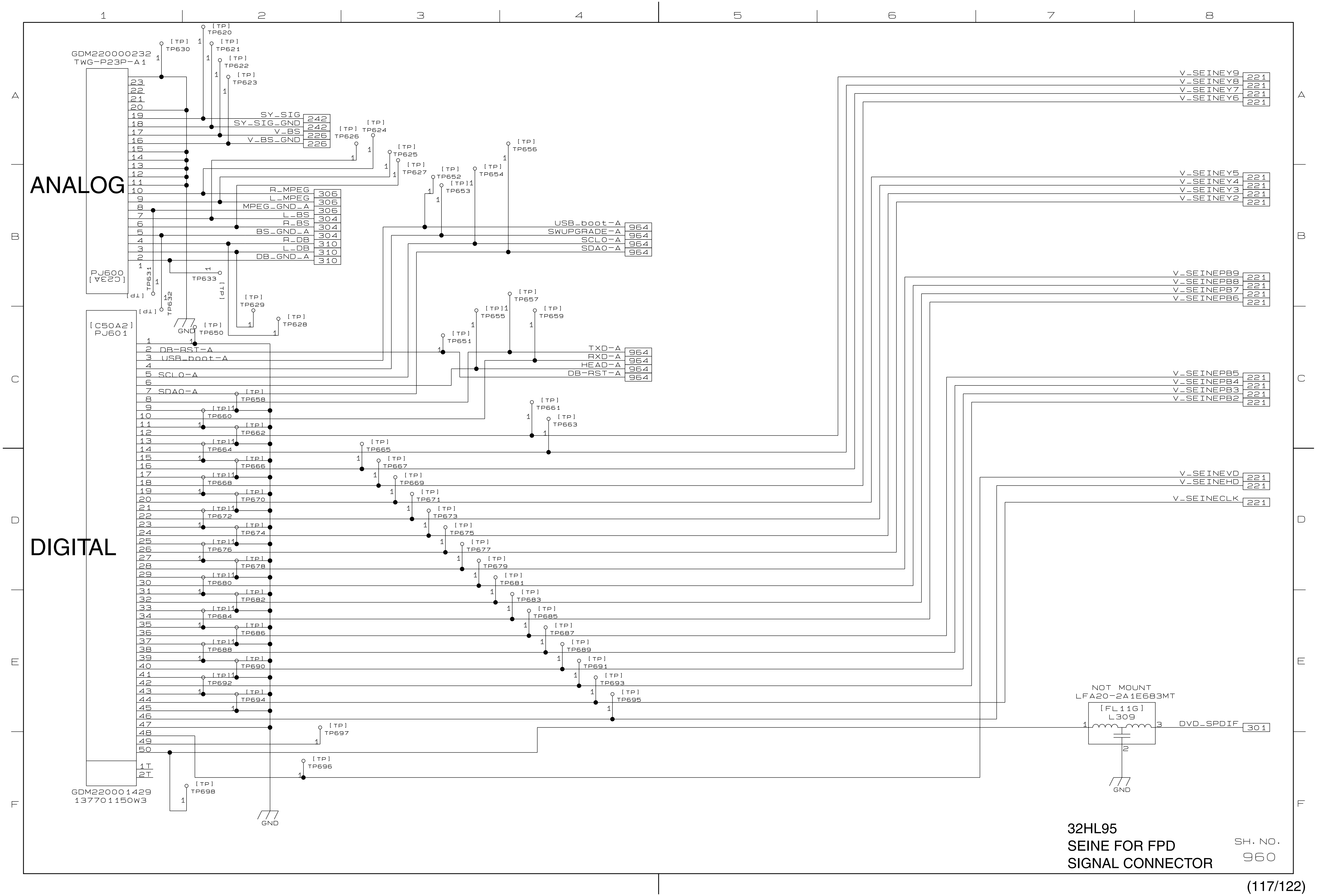
32HL95
SEINE FOR FPD
VCXO

SH. NO.
941


1
2
3
4
5
6
7
8
A
B
C
D
E
F
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 12/13
[G81240B]
IC1
[N.C]
SDVREF
[VDD/VSS]
SEINE_VREF
906
C511
10nF(K)
C507
100nF(Z)
GND
+2.5_SEDDR
C502 10nF(K)
C505 10nF(K)
C509 10nF(K)
C513 10nF(K) NOT MOUNT
C517 10nF(K)
C522 10nF(K) NOT MOUNT
C525 10nF(K) NOT MOUNT
C529 10nF(K)
C526 10uF(M)
VDD2(2.5V)=13
3.3V-S
NOT MOUNT
DP906
[TP]
Front
C503 100nF(Z)
C506 100nF(Z)
C510 100nF(Z)
C514 100nF(Z)
C519 100nF(Z)
C524 100nF(Z)
C527 100nF(Z)
C531 100nF(Z)
C534 100nF(Z)
C501 100nF(Z)
C504 100nF(Z)
C508 100nF(Z)
C516 100nF(Z)
C521 100nF(Z)
C540 100nF(Z)
C528 10uF(M)
VDDS(3.3V)=35
DP907
NOT MOUNT
[VDD2]
[VDDS]
[VSS1]
N.C
TC81240ATBG(0.5)
MPEG2 SYSTEM LSI 13/13
[G81240B]
IC1
[VDD/VSS]
+1.7V
NOT MOUNT
DP908
[TP]
Front
[VDDC]
[VSS2]
NC
VDDC(1.5V)=37
C543 100nF(Z)
C545 100nF(Z)
C547 100nF(Z)
C549 100nF(Z)
C551 100nF(Z)
C556 100nF(Z)
C559 100nF(Z)
C562 100nF(Z)
C565 100nF(Z)
C544 100nF(Z)
C546 100nF(Z)
C548 100nF(Z)
C550 100nF(Z)
C552 100nF(Z)
C554 100nF(Z)
C557 100nF(Z)
C563 100nF(Z)
C566 100nF(Z)
C561 10uF(M)

32HL95
SEINE FOR FPD
SEINE VDD/VSS

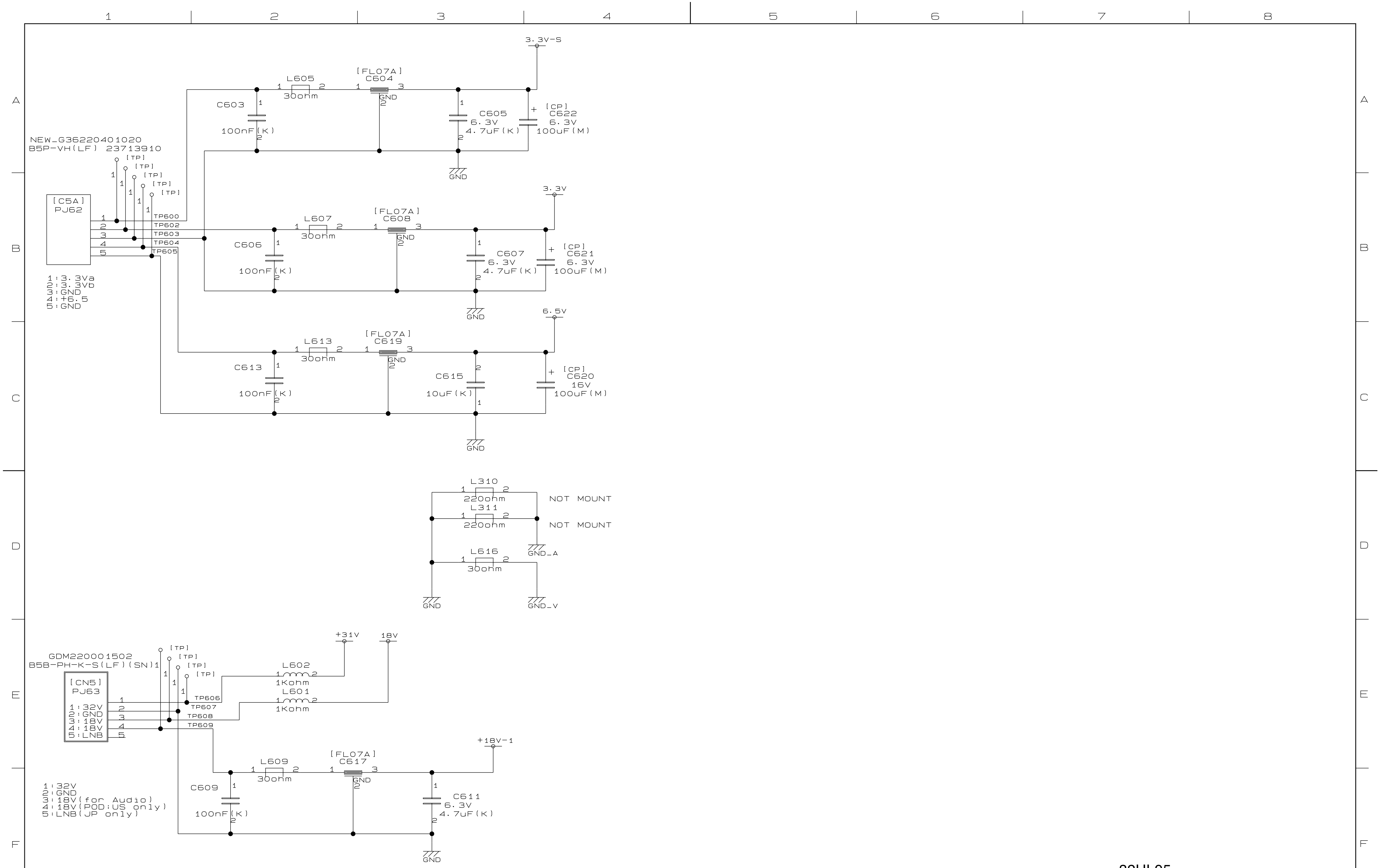
SH. NO.
950


ANALOG
DIGITAL
GDM220000232
TWG-P23P-A1
PJ600
[C23A]
[C50A2]
PJ601
GDM220001429
137701150W3
SY_SIG 242
SY_SIG_GND 242
V_BS 226
V_BS_GND 226
R_MPEG 306
L_MPEG 306
MPEG_GND_A 306
L_BS 304
R_BS 304
BS_GND_A 304
R_DB 310
L_DB 310
DB_GND_A 310
USB_boot-A 964
SWUPGRADE-A 964
SCL0-A 964
SDA0-A 964
TXD-A 964
RXD-A 964
HEAD-A 964
DB-RST-A 964
DB-RST-A
USB_boot-A
SCL0-A
SDA0-A
V_SEINEY9 221
V_SEINEY8 221
V_SEINEY7 221
V_SEINEY6 221
V_SEINEY5 221
V_SEINEY4 221
V_SEINEY3 221
V_SEINEY2 221
V_SEINEPB9 221
V_SEINEPB8 221
V_SEINEPB7 221
V_SEINEPB6 221
V_SEINEPB5 221
V_SEINEPB4 221
V_SEINEPB3 221
V_SEINEPB2 221
V_SEINEVD 221
V_SEINEHD 221
V_SEINECLK 221
NOT MOUNT
LFA20-2A1E683MT
[FL11G]
L309
DVD_SPDIF 301
GND
[TP] TP620
[TP] TP621
[TP] TP622
[TP] TP623
[TP] TP624
[TP] TP625
[TP] TP626
[TP] TP627
[TP] TP628
[TP] TP629
[TP] TP630
[TP] TP631
[TP] TP632
[TP] TP633
[TP] TP650
[TP] TP651
[TP] TP652
[TP] TP653
[TP] TP654
[TP] TP655
[TP] TP656
[TP] TP657
[TP] TP658
[TP] TP659
[TP] TP660
[TP] TP661
[TP] TP662
[TP] TP663
[TP] TP664
[TP] TP665
[TP] TP666
[TP] TP667
[TP] TP668
[TP] TP669
[TP] TP670
[TP] TP671
[TP] TP672
[TP] TP673
[TP] TP674
[TP] TP675
[TP] TP676
[TP] TP677
[TP] TP678
[TP] TP679
[TP] TP680
[TP] TP681
[TP] TP682
[TP] TP683
[TP] TP684
[TP] TP685
[TP] TP686
[TP] TP687
[TP] TP688
[TP] TP689
[TP] TP690
[TP] TP691
[TP] TP692
[TP] TP693
[TP] TP694
[TP] TP695
[TP] TP696
[TP] TP697
[TP] TP698
1 2 3 4 5 6 7 8
A B C D E F

32HL95
SEINE FOR FPD
SIGNAL CONNECTOR

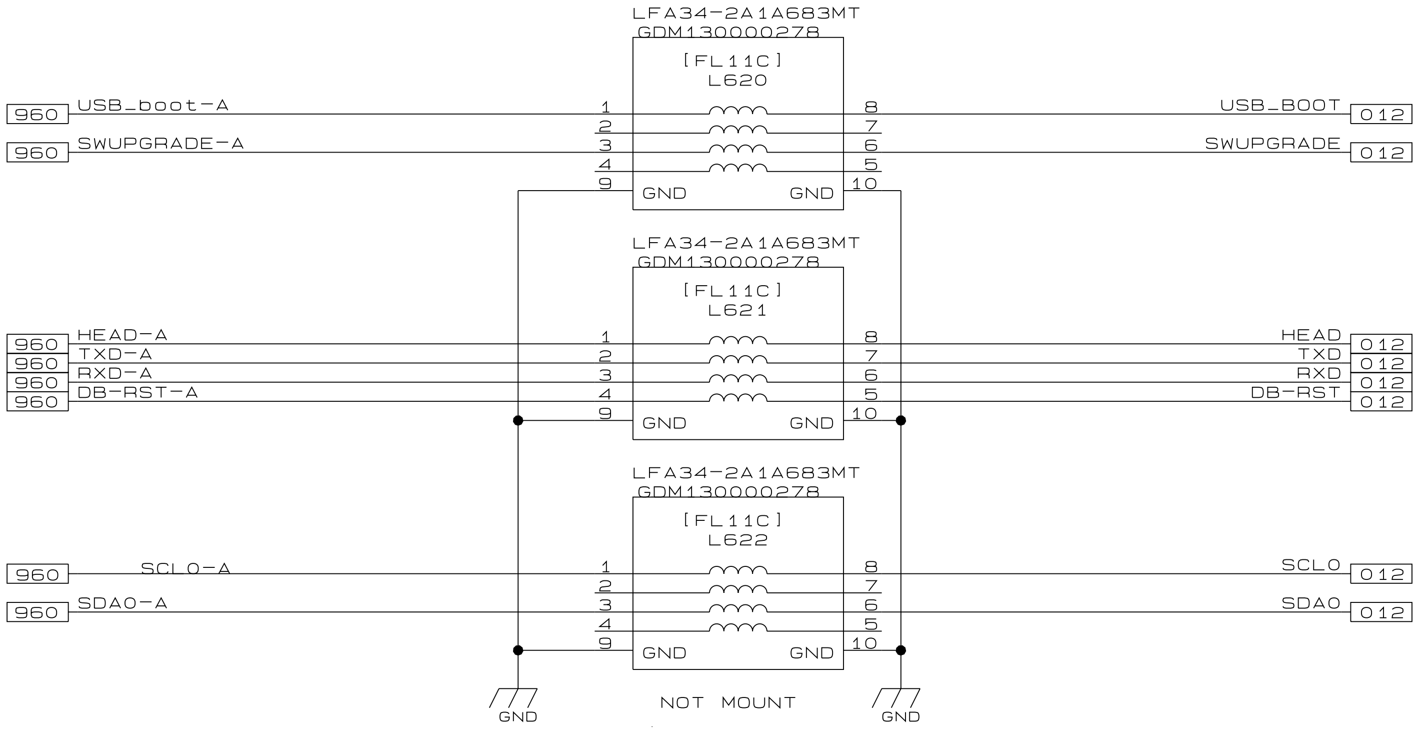
SH. NO.
960

]


1
2
3
4
5
6
7
8
A
B
C
D
E
F
3.3V-S
L605
1 2
30ohm
[FL07A]
C604
1 3
GND
2
C603
1
100nF(K)
2
C605
6.3V
4.7uF(K)
[CP]
C622
6.3V
100uF(M)
GND
NEW_G36220401020
B5P-VH(LF) 23713910
[TP]
[C5A]
PJ62
TP600
TP602
TP603
TP604
TP605
1:3.3Va
2:3.3Vb
3:GND
4:+6.5
5:GND
3.3V
L607
30ohm
[FL07A]
C608
C606
100nF(K)
C607
6.3V
4.7uF(K)
[CP]
C621
6.3V
100uF(M)
6.5V
L613
30ohm
[FL07A]
C619
C613
100nF(K)
C615
10uF(K)
[CP]
C620
16V
100uF(M)
L310
220ohm
NOT MOUNT
L311
220ohm
NOT MOUNT
GND_A
L616
30ohm
GND
GND_V
+31V
18V
GDM220001502
B5B-PH-K-S(LF)(SN)
[CN5]
PJ63
1:32V
2:GND
3:18V
4:18V
5:LNB
L602
1Kohm
L601
1Kohm
TP606
TP607
TP608
TP609
+18V-1
L609
30ohm
[FL07A]
C617
C609
100nF(K)
C611
6.3V
4.7uF(K)
1:32V
2:GND
3:18V(for Audio)
4:18V(POD:US only)
5:LNB(JP only)

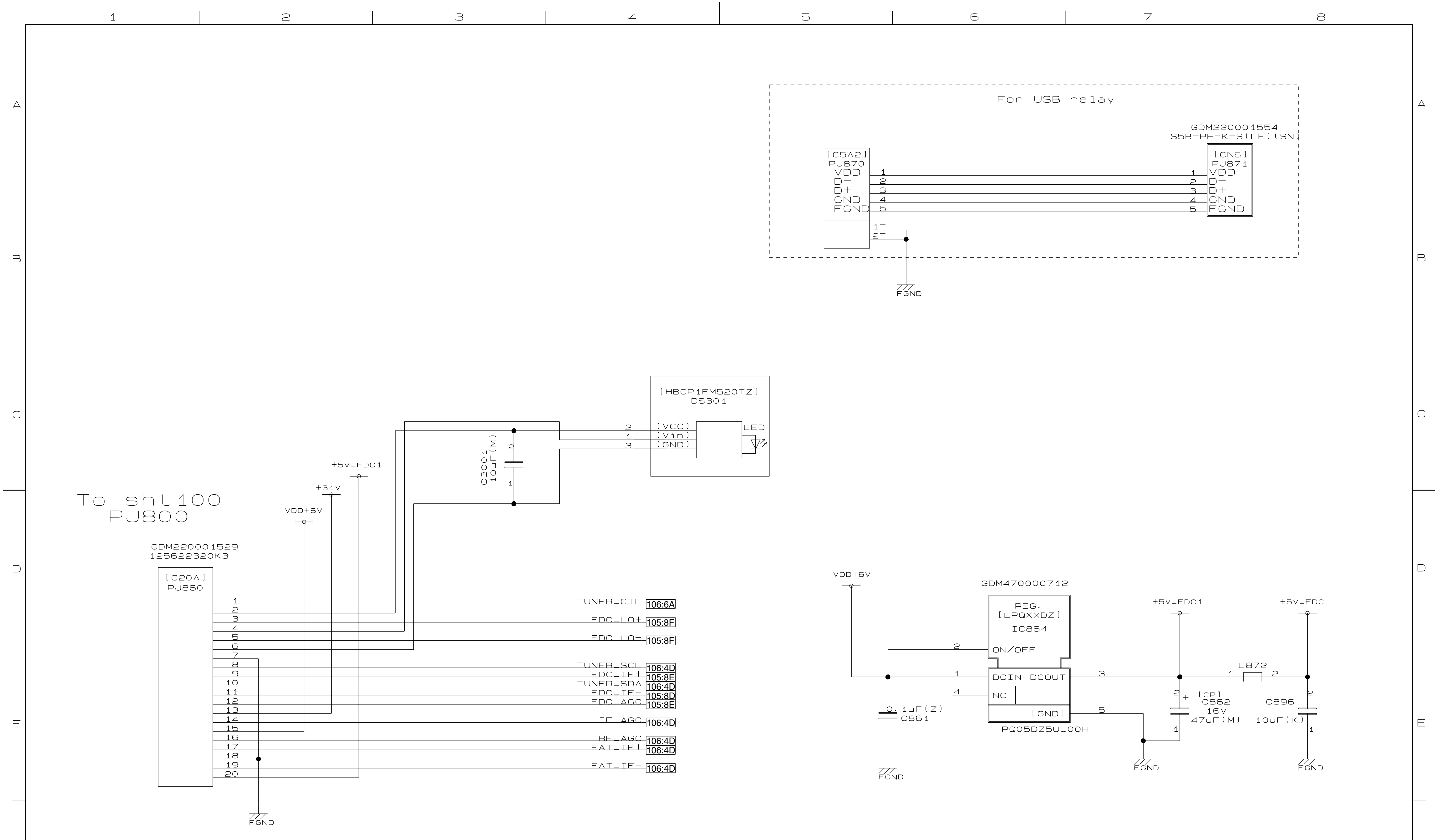
32HL95
SEINE FOR FPD
POWER CONNECTOR

SH. NO.
961


LFA34-2A1A683MT
GDM130000278
[FL11C]
L620
960 USB_boot-A
960 SWUPGRADE-A
USB_BOOT 012
SWUPGRADE 012
1 2 3 4 9
8 7 6 5 10
GND GND
LFA34-2A1A683MT
GDM130000278
[FL11C]
L621
960 HEAD-A
960 TXD-A
960 RXD-A
960 DB-RST-A
HEAD 012
TXD 012
RXD 012
DB-RST 012
LFA34-2A1A683MT
GDM130000278
[FL11C]
L622
960 SCL0-A
960 SDA0-A
SCL0 012
SDA0 012
GND
NOT MOUNT
GND

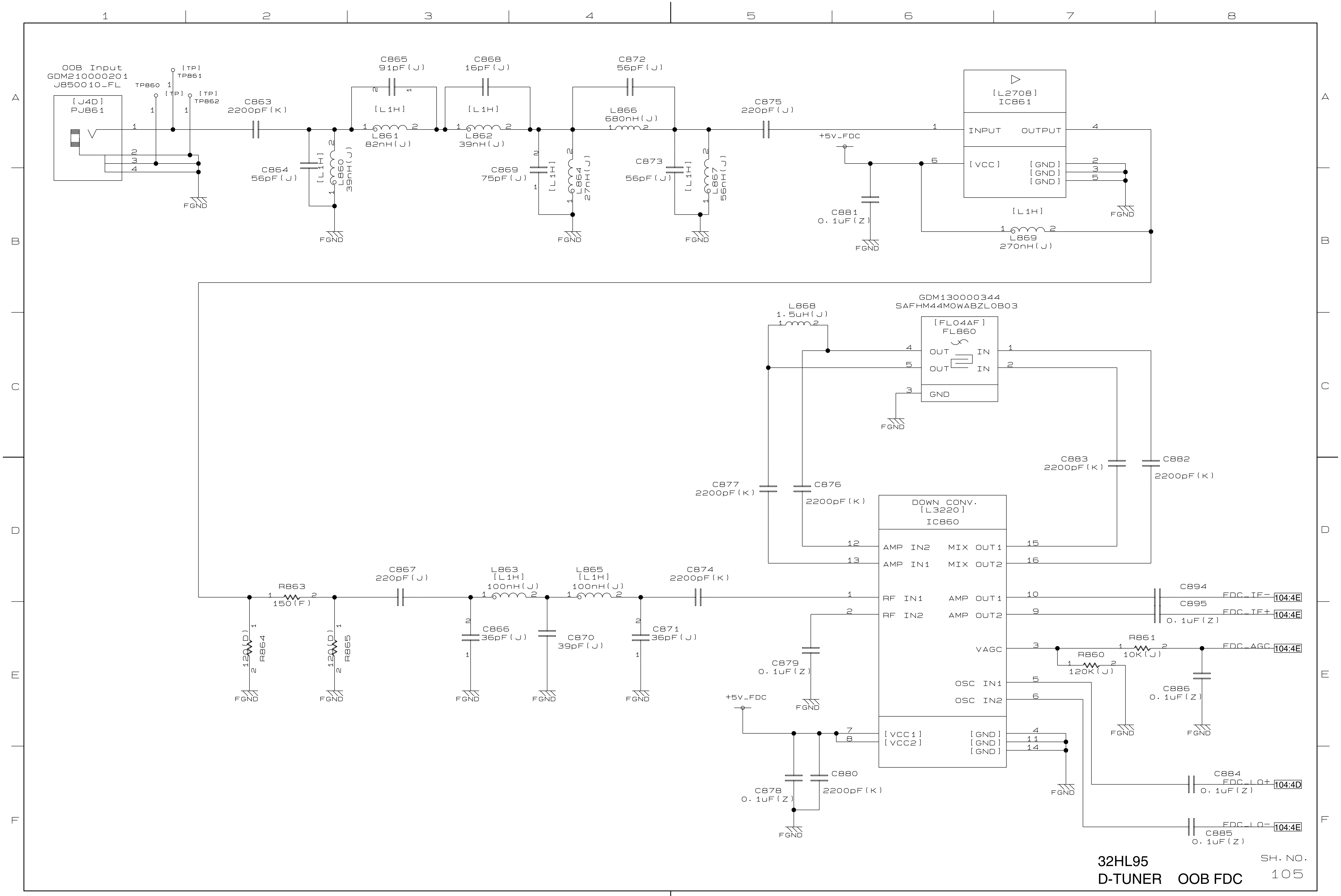
32HL95
SEINE FOR FPD
Signal filter

SH. NO.
964


For USB relay
[C5A2]
PJ870
VDD
D−
D+
GND
FGND
1
2
3
4
5
1T
2T
GDM220001554
S5B-PH-K-S(LF)(SN)
[CN5]
PJ871
FGND
[HBGP1FM520TZ]
DS301
(VCC)
(Vin)
(GND)
LED
C3001
10uF(M)
To sht100
PJ800
+5V_FDC1
+31V
VDD+6V
GDM220001529
125622320K3
[C20A]
PJ860
TUNER_CTL
106:6A
FDC_LO+
105:8F
FDC_LO−
105:8F
TUNER_SCL
106:4D
FDC_IF+
105:8E
TUNER_SDA
106:4D
FDC_IF−
105:8D
FDC_AGC
105:8E
IF_AGC
106:4D
RF_AGC
106:4D
FAT_IF+
106:4D
FAT_IF−
106:4D
GDM470000712
REG.
[LPQXXDZ]
IC864
ON/OFF
DCIN
DCOUT
NC
[GND]
PQ05DZ5UJ00H
0.1uF(Z)
C861
+5V_FDC1
+5V_FDC
L872
[CP]
C862
16V
47uF(M)
C896
10uF(K)
FGND

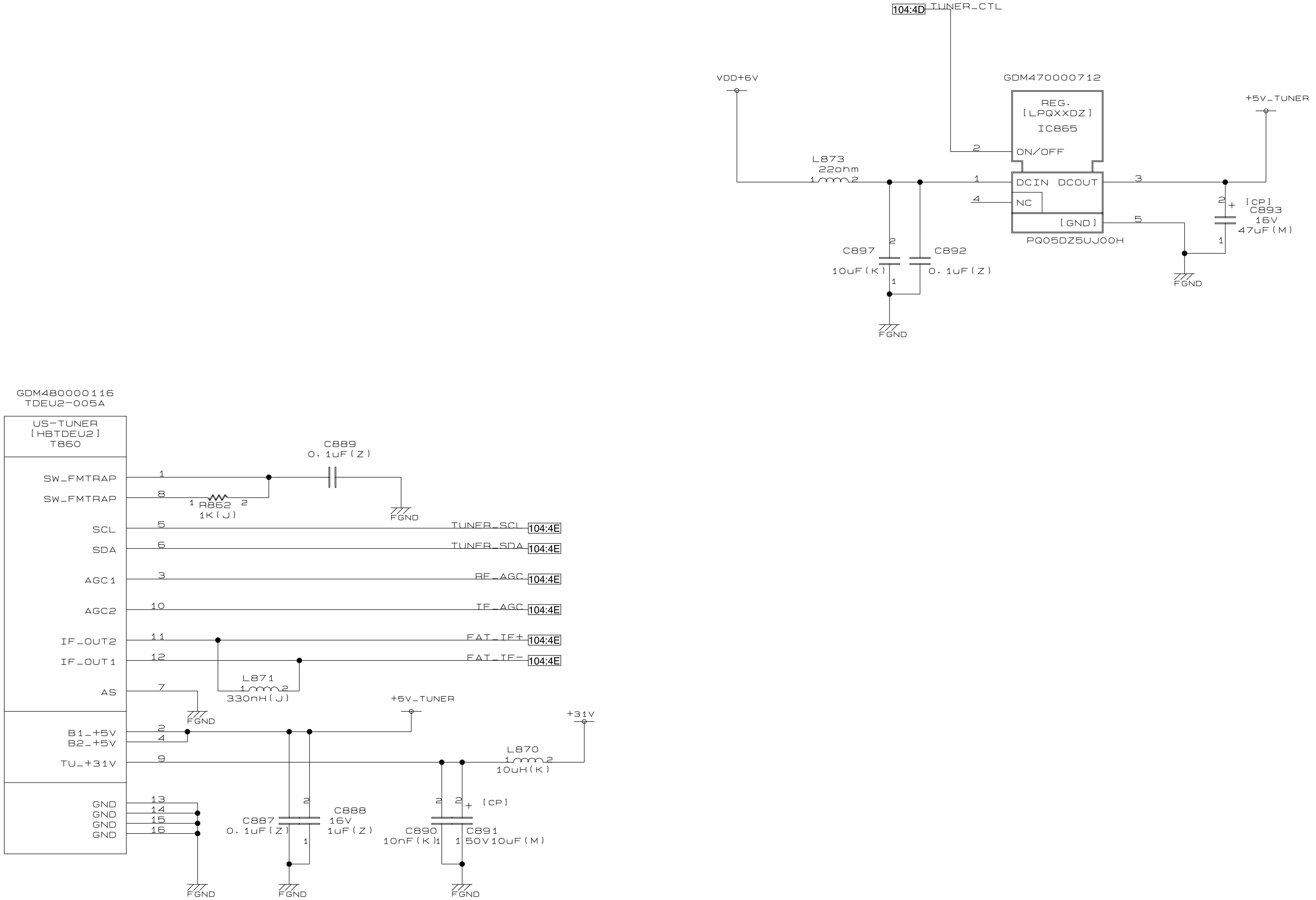
32HL95
D-TUNER
TUNER CONNECTOR(TUNER)

SH. NO.
104


1
2
3
4
5
6
7
8
A
B
C
D
E
F
OOB Input
GDM210000201
J850010_FL
[J4D]
PJ861
TP860
[TP]
TP861
[TP]
TP862
FGND
C863
2200pF(K)
C864
56pF(J)
[L1H]
L860
39nH(J)
C865
91pF(J)
[L1H]
L861
82nH(J)
C868
16pF(J)
[L1H]
L862
39nH(J)
C869
75pF(J)
[L1H]
L864
27nH(J)
C872
56pF(J)
L866
680nH(J)
C873
56pF(J)
[L1H]
L867
56nH(J)
C875
220pF(J)
+5V_FDC
C881
0.1uF(Z)
[L2708]
IC861
INPUT
OUTPUT
[VCC]
[GND]
[GND]
[GND]
[L1H]
L869
270nH(J)
L868
1.5uH(J)
GDM130000344
SAFHM44M0WABZL0B03
[FL04AF]
FL860
OUT
OUT
IN
IN
GND
C877
2200pF(K)
C876
2200pF(K)
C883
2200pF(K)
C882
2200pF(K)
DOWN CONV.
[L3220]
IC860
AMP IN2
AMP IN1
MIX OUT1
MIX OUT2
RF IN1
RF IN2
AMP OUT1
AMP OUT2
VAGC
OSC IN1
OSC IN2
[VCC1]
[VCC2]
[GND]
[GND]
[GND]
R863
150(F)
R864
120(D)
R865
120(D)
C867
220pF(J)
L863
[L1H]
100nH(J)
L865
[L1H]
100nH(J)
C874
2200pF(K)
C866
36pF(J)
C870
39pF(J)
C871
36pF(J)
C879
0.1uF(Z)
C878
0.1uF(Z)
C880
2200pF(K)
C894
C895
0.1uF(Z)
FDC_IF-
FDC_IF+
104:4E
104:4E
R861
10K(J)
R860
120K(J)
FDC_AGC
104:4E
C886
0.1uF(Z)
C884
0.1uF(Z)
FDC_LO+
104:4D
C885
0.1uF(Z)
FDC_LO-
104:4E

32HL95
D-TUNER OOB FDC

SH. NO.
105


104:4D TUNER_CTL
VDD+6V
GDM470000712
REG.
[LPQXXDZ]
IC865
ON/OFF
DCIN DCOUT
NC
[GND]
PQ05DZ5UJ00H
+5V_TUNER
L873
22ohm
C897
10uF(K)
C892
0.1uF(Z)
[CP]
C893
16V
47uF(M)
FGND
GDM480000116
TDEU2-005A
US-TUNER
[HBTDEU2]
T860
SW_FMTRAP
SW_FMTRAP
SCL
SDA
AGC1
AGC2
IF_OUT2
IF_OUT1
AS
B1_+5V
B2_+5V
TU_+31V
GND
GND
GND
GND
C889
0.1uF(Z)
R862
1K(J)
TUNER_SCL 104:4E
TUNER_SDA 104:4E
RF_AGC 104:4E
IF_AGC 104:4E
FAT_IF+ 104:4E
FAT_IF- 104:4E
L871
330nH(J)
+5V_TUNER
+31V
L870
10uH(K)
C887
0.1uF(Z)
C888
16V
1uF(Z)
C890
10nF(K)
C891
50V10uF(M)
[CP]
FGND

32HL95
D-TUNER
FAT TUNER

SH. NO.
106

TOSHIBA CORPORATION
1-1, SHIBAURA 1-CHOME, MINATO-KU, TOKYO 105-8001, JAPAN